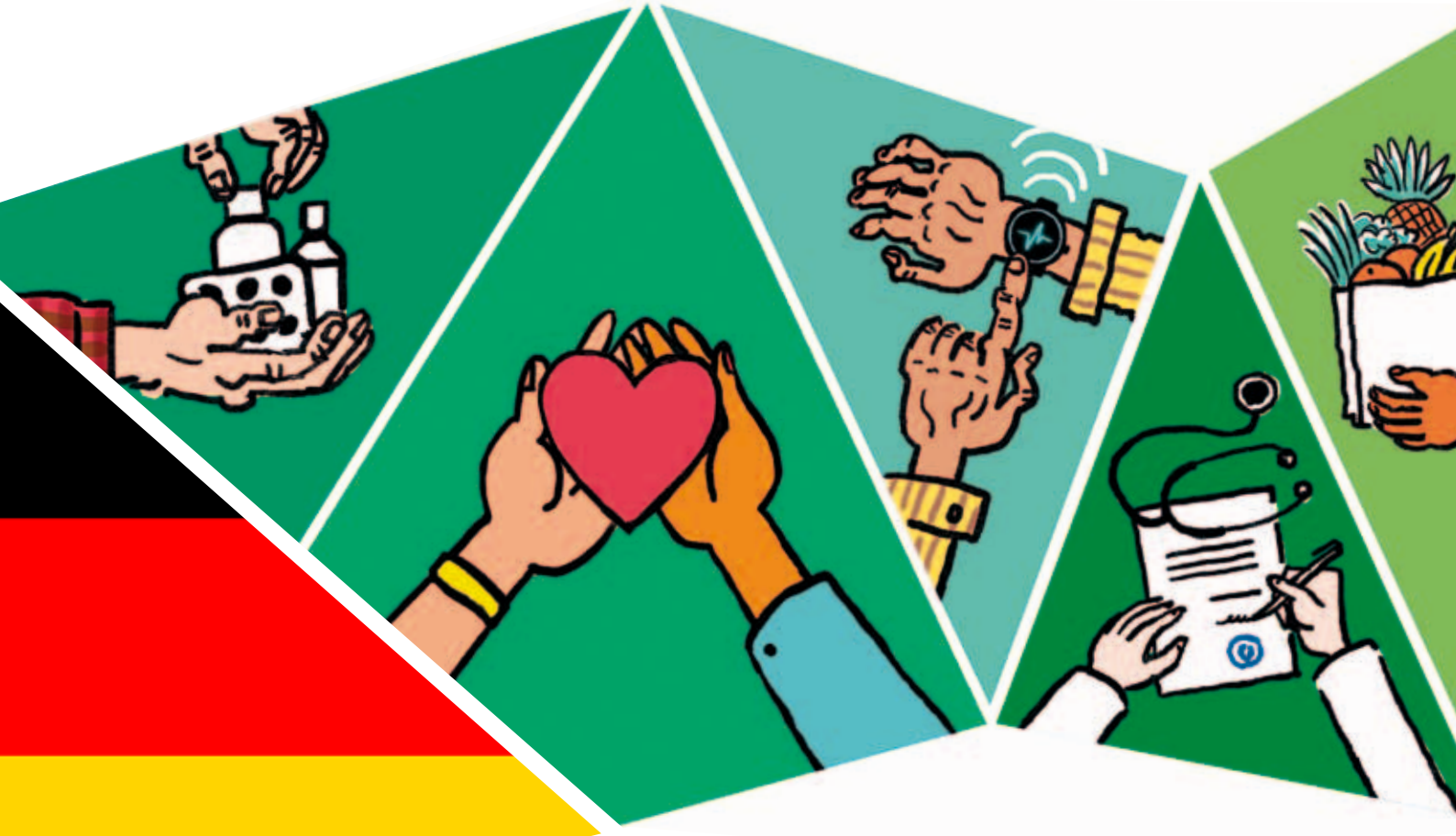
World Health Organization
REGIONAL OFFICE FOR Europe

GERMANY

Country case study on the integrated delivery of long-term care



WHO Regional Office for Europe series on integrated delivery of long-term care

World Health Organization
REGIONAL OFFICE FOR Europe

GERMANY

Country case study on the integrated delivery of long-term care

WHO Regional Office for Europe series on integrated delivery of long-term care

Abstract

This report describes the provision of long-term care in Germany, with an emphasis on identifying efforts to foster the integrated delivery of services. There is mandatory statutory or private long-term care insurance for the entire population; eligibility for long-term care is open to people with any restricted competencies in daily life. Long-term care encompasses cash benefits, benefits in kind or residential care. Health expenditure is high, and coordination of care across ambulatory, hospital, rehabilitative and long-term care remains a challenge. Although the system performs well by several measures, strengthening the role of general practitioners and primary care could result in reduction in amenable mortality and preventable hospitalization while fostering integration of care and case management in long-term care.

Keywords

LONG-TERM CARE
HEALTH SERVICES FOR THE AGED
CAREGIVERS
INTEGRATED DELIVERY SYSTEMS
WOMEN'S HEALTH SERVICES
GERMANY

Address requests about publications of the WHO Regional Office for Europe to:

Publications
WHO Regional Office for Europe
UN City, Marmorvej 51
DK-2100 Copenhagen Ø
Denmark

Alternatively, complete an online request form for documentation, health information, or for permission to quote or translate, on the Regional Office website (http://www.euro.who.int/pubrequest).

Cover photo: Roman Zakharov

Contents

List of tables

List of figures

List of boxes

Abbreviations

EU	European Union
GDP	gross domestic product
IHME	Institute for Health Metrics and Evaluation
OECD	Organisation for Economic and Co-operation and Development

Acknowledgements

This report is part of a series developed by the WHO Regional Office for Europe to assess the integrated delivery of services for long-term care across health and social sectors. The series is developed as part of an inter-programmatic initiative to accelerate progress towards integrating services to deliver long-term care services with a perspective of equity, gender and human rights. The collaborative includes the Health Service Delivery programme of the Division of Health Systems and Public Health, the Ageing and Health programme of the Division of Noncommunicable Diseases and Promoting Health through the Life-course and the Gender and Human Rights programme of the Division of Policy and Governance for Health, all at the WHO Regional Office for Europe.

Input was provided by representatives from the Ministry of Health, the Federation of German Counties (Deutscher Landkreistag), the German Association for Public and Private Welfare (Deutscher Verein für öffentliche und private Fürsorge e.V.), the Federation of Private Providers of Social Services (Bundesverband privater Anbieter sozialer Dienste), the Workers' Welfare Association (Arbeiterwohlfahrt), AOK – Die Gesundheitskasse (public health insurance company), the German Alzheimer Association (Deutsche Alzheimer Gesellschaft), the Centre for Quality in Care (Zentrum für Qualität in der Pflege), Bielefeld University, Faculty of Health Sciences (Versorgungsforschung/Pflegewissenschaft), the Medical University of Hanover (Institute for Epidemiology, Social Medicine and Health System Research), the Techniker Krankenkasse, Die AUE (day centre for people with dementia), Gesundes Kinzigtal GmbH, GeriNet Leipzig and Landesinitiative Demenz-Service NRW.

The work has been made possible by the support of the Government of Germany and the Government of Kazakhstan through the WHO European Centre for Primary Health Care in Almaty, Kazakhstan.

Editors

Hector Pardo-Hernandez, WHO Regional Office for Europe
Juan Tello, WHO Regional Office for Europe

Contributors

The following individuals contributed to this document, in alphabetical order:
Manfred Huber, WHO Regional Office for Europe
Kai Leichsenring, European Centre for Social Welfare Policy and Research

Series editors

Juan Tello, WHO Regional Office for Europe
Manfred Huber, WHO Regional Office for Europe
Isabel Yordi, WHO Regional Office for Europe

Publication productions

Erica Barbazza, design
David Breuer, text editing
Jakob Heichelmann, layout

Introduction

The European population is rapidly ageing *(1)*. Low fertility rates and higher life expectancies are the leading causes fostering this shift *(1)*. In the WHO European Region, births per woman have remained around 1.7 between 2000 and 2019, below replacement level fertility *(2)*. Average life expectancy has increased from 73.0 years at birth in 2000 to 77.1 years in 2015 *(2)*. In the same period, life expectancy at age 65 years has increased from 16.4 years to 18.4 *(2)*, and the percentage of the population 65 years or older has increased from 13.3% to 15.5%. In the European Union (EU) countries, the proportion of the population older than 80 is 5.6%, which is expected to increase to 14.6% by 2100 *(3)*.

As the proportion and total number of older people increases, their needs and care should be considered. In 2017, cardiovascular diseases, cancer and nervous system disorders were the leading causes of death and disability-adjusted life-years lost among people 70 years or older, whereas musculoskeletal disorders, sense organ diseases and cardiovascular diseases were the leading causes of years lived with disability *(4)*. The re-emergence and persistence of communicable diseases is an added challenge. In the WHO European Region alone, it is estimated that up to 72 000 people die per year from seasonal influenza *(2)*. In EU counties in 2014, almost 50% of people 65 years or older reported long-term restrictions in daily activities, whereas more than two thirds reported physical or sensory functional limitations *(3)*.

As a result of these changing scenarios, health systems have been compelled to adapt to meet the needs of older people *(5)*. Meeting these needs is not limited to addressing symptoms or disability associated with disease. It encompasses promoting the development and maintenance of the functional ability that enables well-being in older age, a process known as healthy ageing, and which enables people to live a fulfilling life in accordance with their values *(6)*.

As part of the response to addressing the needs of older people, of the 2016 Global Strategy and Action Plan on Ageing and Health calls for every country to implement a sustainable and equitable system of long-term care *(1)*. Long-term care refers to "the activities undertaken by others to ensure that people with, or at risk of, a significant ongoing loss of intrinsic capacity can maintain a level of functional ability consistent with their basic rights, fundamental freedoms and human dignity" *(1)*.

Long-term care covers a wide range of health and social services that can be delivered in different settings, including the beneficiary's home, hospice and day-care facilities *(7)*. Fragmentation of services is not limited to the delivery of services; it also can be seen during needs assessment, when accessing benefits and packages, in data collection and in the diversity of quality improvement efforts *(8)*. Fragmentation of services has been linked to dual administrative procedures, hindrances in access to care and longer waiting times *(8)* and has been identified as a barrier to reducing hospitalization for ambulatory care sensitive conditions *(9)*.

In the Region, the Strategy and Action Plan for Healthy Ageing in Europe 2012–2020 provides policy directions for ensuring healthy ageing *(10)*. The WHO European Framework for Action on Integrated Health Services Delivery aims to streamline efforts for strengthening people-centred health systems and to promote integrated care models of primary, hospital and social services that are effectively managed and delivered by a coordinated array of providers *(11)*. These efforts are in accordance with the recommendations of WHO's 13th General Programme of Work for integrated services delivery based on a primary health care approach *(12)*.

Addressing the needs of older people is underpinned by a strong gender component that goes beyond biological factors and their differential effect on ageing *(13)*. The multiple facets of gender, understood as the social norms, roles and relationships of and between women and men, influence the provision of long-term care services *(13)*. Older women report lower self-perceived health status and higher rates of unmet health needs *(3)* and are traditionally responsible for providing unpaid, informal care to older relatives at home *(14)*. Men are affected by higher rates of risky behaviour and lower overall and healthy life expectancy *(3)*. The WHO Regional Office for Europe strategies on health and well-being for women *(15)* and men *(16)* highlight the importance of incorporating gender as determinant of men's and women's health to design policies that are responsive to their specific needs and contribute to achieving gender equality.

Promoting the availability and quality of long-term care services that are integrated, people-centred and properly managed is a right step for ensuring healthy lives and well-being in old age, in accordance with the United Nations Sustainable Development Goals *(17)*.

Background

Germany is one of the few countries in Europe with a dedicated insurance system for long-term care. Long-term care insurance was not only a reaction to demographic pressures but also to changing family structures, rising labour-market participation by women and the shifting quantity and quality of demand. The introduction of a new branch of social security in 1994–1995 can be perceived as a success story *(18)*. The infrastructure for long-term care delivery, including employment, has grown both quantitatively and qualitatively in connection with a marked increase of public expenditure and market-oriented governance *(19)*. The number of care practitioners (full-time equivalents) in community care alone increased almost twofold, and residential care capacity increased by almost 50% between 1999 and 2015 *(20)*.

Long-term care has emerged as a distinct policy area subject to increased public interest and dedicated efforts to foster improvement in service provision. Several acts strengthening long-term care have in particular extended the target population by redefining the definition of long-term care needs and the related assessment instrument. Long-term care has been acknowledged as a priority that calls for solidary support and defined social rights, while there is political will to reduce the dependence of people receiving social assistance benefits who need long-term care.

In the wake of the introduction of long-term care insurance, infrastructures for long-term care delivery underwent significant enhancements both in terms of quantity and quality. The prevailing provider structures before 1995, with a long tradition of large private non-profit organizations as key stakeholders, has been reshuffled by the emergence of private for-profit providers and a retreat of public service providers. The marked reliance on private investments, deemed necessary to extend supply structures, facilitated the access of new and additional for-profit providers to the care market but concomitantly multiplied the number of players with significant effects on competition, choice and coordination of service delivery. The role of local authorities, traditionally responsible for social planning and local social services, has been hollowed out and is only slowly regaining ground *(21)*.

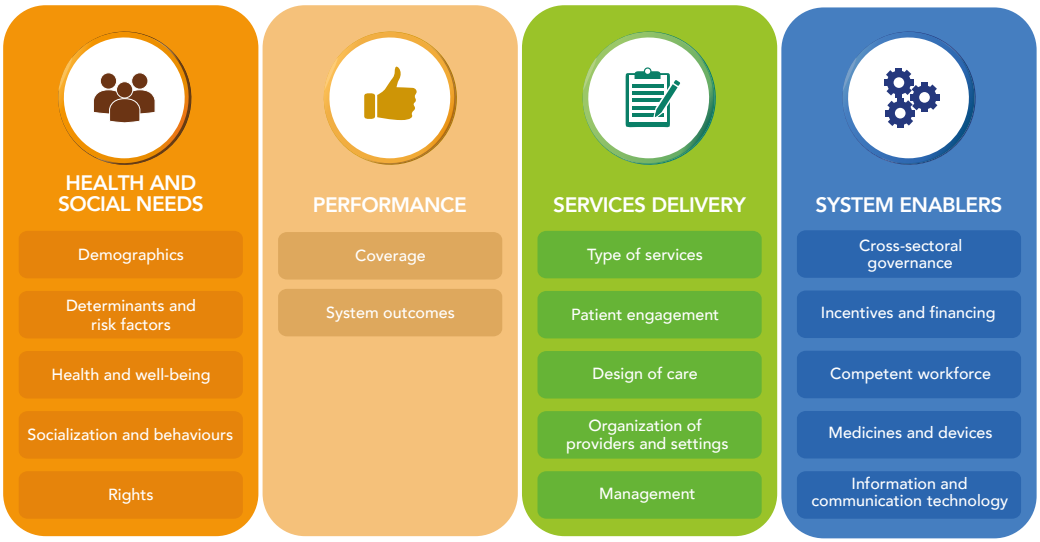
Although the long-term care insurance has structurally been closely linked to social health insurance and health authorities, the delivery of health and social services has remained fragmented and less coordinated than expected. The discourse on integrated care has focused especially on coordination within the health system, such as in terms of managed care and disease management. The distinct funding rationales and the fact that health care insurance basically covers the total costs of interventions, while the long-term care insurance has been conceived as providing only partial financial coverage, may explain in part why health insurers and providers have limited incentives to align service delivery between health and long-term care.

This country report provides a broad overview of Germany's long-term care system from a services delivery perspective. The development and dynamics of long-term care and endeavours towards enhancing integration between health and social services are analysed to identify barriers and enablers for more integrated and person-centred long-term care and to develop actionable policy pointers.

Methods

This assessment was completed following the principles of systems thinking *(22)*, people-centeredness and integrated care *(11,23)*, life-course approach *(24)*, healthy ageing *(6)*, human rights *(25)* and a gender perspective *(26)*. The conceptual framework underpinning this assessment is the European Framework for Action on Integrated Health Service Delivery *(11)*. This policy framework calls for designing models of care based on the health and social needs and the alignment of the system enablers accordingly. Based on this, the assessment is developed along four domains: health and social needs, performance, services delivery and system enablers *(11, 27)*. These domains and their respective features are illustrated in Fig. 1 and listed in Table 1.

Fig. 1. Framework for assessing integrated delivery of health and social services for long-term care



Source: Country assessment framework for the integrated delivery of long-term care *(27)*.

The assessment was structured in the following four domains.

- **Health and social needs**. This domain explores the main demographic and epidemiological trends at the country level, with an emphasis on people 65 years or older. The main determinants of health and lifestyle risk factors affecting people's health are listed, together with the underlying health needs of older people. The latter includes self-assessed outcomes and measures of disability and daily life limitations. The specific profile and needs of caregivers are investigated, together with measures to ensure older people's rights, dignity protection and support from the community.

- **Performance**. This domain encompasses an appraisal of long-term care services potential users and the system coverage. It also compiles information on waiting times, hospital length of stay, hospitalization rates for ambulatory care sensitive conditions and other performance measures.

- **Services delivery**. This domain exhaustively explores the existing services available to older people and their caregivers and the procedures in place for completing needs assessment, for disease and transition management and the available care pathways. Policies for fostering patient engagement are also covered. The profile of service providers, whether they are public, private for-profit or not-for-profit and the different settings in which services are provided are also compiled. Lastly, there is consideration of the quality assurance efforts within settings and the incorporation of new technologies to enhance information exchange, such as electronic health records.

- **System enablers**. System enablers include other health system functions that intersect with health services delivery, including governance, funding of long-term care services, the workforce and the available information and communication technology resources.

Table 1. Overview of the components of the assessment framework

Domain	Subdomain	Feature
Health and social needs (*)	Demographics	Population structure and dynamics
	Determinants and risk factors	Socioeconomic status of older people
		Lifestyle and risk factors
	Health and well-being	Health and social needs of older people
		Disability and well-being of older people
	Socialization and behaviours	Social inclusions and networks
		Gender behaviours when seeking care
	Rights	Rights of older people
		Rights and needs of carergivers
Performance	Coverage	Long-term care services coverage
	System outcomes	Quality of care for older people
Services delivery	Types of services	Health services for older people
		Social services for older people
		Services for caregivers
	Patient engagement	Self-management support for older people
		Shared decision-making with older people
		Peer-to-peer support and social inclusion
	Design of long-term care	Needs assessment
		Pathways and integrated services delivery
		Disease management
		Management of transitions
		Care/case coordination or management
	Organization of providers and settings for long-term care	Long-term care settings (public and private)
		Long-term care providers
		Out-of-hours services
		Cultural, social and gender patterns of caring
	Management	Facility management
		Autonomy and decision making
		Quality management including quality improvement mechanisms

Table 1. continued

Domain	Subdomain	Feature
System enablers	Cross-sectoral governance	Integrated long-term care priorities
		Governance and accountability arrangements
		Shared planning
		Allocation of resources
	Incentives and financing	Provider payments
		Financial coverage
	Competent workforce	Planning, recruitment and staffing
		Workforce composition (*)
		Continuous professional development
		Professionalization of long-term care roles
	Medicines and devices for older adults	Mechanisms for the responsible use and management of medicines
		Access to medical devices by older people
	Information and communication technology	Data capture in health and social sectors
		Application of new technology and online platforms
		Information exchange

(*) Disaggregated for women and men to ensure gender-responsive assessment and policy recommendations *(27)*.

Data sources

This report was constructed applying mixed methods, relying on qualitative data, literature searches, observational facility visits, semistructured interviews and round-table discussions with key informants. This design was adopted to consolidate a comprehensive view of long-term care in Germany. The specific sources and process for data collection are described below.

Database data

Initial desk research was completed for existing, standardized indicators. Data were extracted from international databases: Eurostat *(3)*, the Institute for Health Metrics and Evaluation *(4)* and the Organisation for Economic and Co-operation and Development (OECD) *(28)* as well as Germany's Federal Statistical Office *(29)* and the Information System of the Federal Health Monitoring *(30)*. These data have primarily informed an analysis of the current health context in the scope of depicting the health and well-being of older people in Germany.

Scientific and grey literature

The literature search targeted scientific and grey literature on Germany's long-term care services using the topics listed in Table 1 as keywords. Searches for grey literature included the WHO database WHOLIS for Germany-specific reporting such as the Health Systems in Transition Series *(31)*. Other grey literature included reporting from such organizations as the European Commission and the OECD. Searches for scientific literature were conducted using MEDLINE (PubMed) and Google Scholar on the topic of health and social services. Literature was reviewed in English and German.

Field evidence

Telephone interviews were arranged between August and October 2017 with key informants from academia and from health insurance, health management and

quality of care agencies. These contacts and additional desk research served to identify and analyse projects and initiatives with potential relevance and good practices for care coordination and integrated long-term care.

A five-day country visit took place in 2017. The country site visit included semistructured interviews with local experts and representatives of relevant stakeholders, including the Federal Ministry of Health and other government agencies, service providers, long-term care workers and patients' associations (Fig. 2). There was one site visit to a service provider and contact with three initiatives identified as good practice for integrated care: Healthy Kinzigtal Integrated Healthcare, GeriNet Leipzig and State initiative for dementia services (Landesinitiative Demenz-Service) North-Rhine Westfalia.

Fig. 2. Field evidence components and informants

Telephone interviews	Site visits	Semi-structured interviews
Semi-structured telephone interviews with:	Site visits to institutions delivering long-term care:	In-person interviews with representatives from:
• Centre for Quality in Care • Bielefeld University, Faculty of Health Sciences • Gesundes Kinzigtal GmbH • Medical University of Hanover • Techniker Krankenkasse	• Die AUE (Day centre for people with dementia)	• Ministry of Health • Federation of German Counties • German Association for Public and Private Welfare • Federation of Private Providers of Social Services • AOK – Die Gesundheit-skasse • Workers' Welfare Association • German Alzheimer Association • Die AUE (Dat centre for people with dementia)

Health and social needs of older people

About this section

The demographic and epidemiological data presented in this section provide a snapshot of the main characteristics of the older population and their needs. Data are disaggregated by sex when available. Data were mostly obtained through initial desk research; country experts filled in information gaps and validated the findings.

Population remains stable because of immigration while the proportion of the population older than 65 years is rapidly growing

Germany is the most populous country in the EU. With 82.9 million people, it accounts for 16.2% of the EU population *(29)* (Table 2). The population has increased by about a million during the last decade; it is expected to remain stable at around 83 million by 2030, decreasing to 80 million or slightly less by 2050, depending on net migration rates *(29)*.

Table 2. Main demographic indicators

Measure	Total	Year
Total population[a]	**82 887 000**	2018
Women (%)	41 980 000 (50.6)	
Men (%)	40 907 000 (49.4)	
Population 65 years or older[a] (% of total population)	**17 709 711 (21.4)**	2018
Women (% of population 65 years or older)	9 983 467 (56.4)	
Men (% of population 65 years or older)	7 726 244 (43.6)	
Population 85 years or older[a] (% of total population)	**2 265 474 (2.73)**	2018
Women (% of population 85 years or older)	1 546 977 (68.3)	
Men (% of population 85 years or older)	718 497 (31.7)	
Net migration[b]	**394 217**	2017
Fertility rate (births per woman)[b]	**1.57**	2017
Median age[c]	**45.9**	2015
Life expectancy at birth[b]	**81.1**	2017
Women	83.4	
Men	78.7	
Life expectancy at age 65 years[d]	**19.8**	2017
Women	21.0	
Men	18.1	

Sources: [a]DESTATIS [website] *(29)*; [b]Population statistics at regional level *(3)*; [c]Profiles of ageing 2019 *(32)*; [d]European core health indicators *(33)*.

The relative stability in population results more from immigration than from the number of births. The fertility rate in 2017 was 1.57 births per woman, well below population replacement rates *(3)*. The adjusted crude rate of net migration was 5.1% in 2017, more than twice the EU average, (Eurostat) and net migration was almost 400 000 people in 2017 *(3,28)*.

Similar to other European countries, the population is rapidly ageing

Life expectancy was 83.4 years for women and 78.7 for men in 2017 *(3)* (Table 2). The 4.7-year gender gap is lower than the EU average of 5.4 years. In 2018, 21.4% of the total population was 65 years of age or older *(3)*, of which 56.4% were women (Table 2). The proportion of people 65 years or older is expected to increase to 26.2% by 2030 and to 30.0% by 2050 *(32)*. The total population 85 years of age or older is slightly more than 2.2 million, about 2.7% of the total population (Table 2). This age group is estimated to grow to 3.4 million by 2030 and 5.6 million by 2050 *(32)*. The median age was 45.9 years in 2015, expected to increase to 47.0 years by 2030 and 49.2 years by 2050 *(32)*. Most older people are women, and women reaching old age tend to live longer: two thirds of the people 85 years or older are women. Population ageing is more pronounced in the eastern regions because of the migration of younger residents to western regions.

Table 3. Causes of death and disability, 2017

Measure of death or disability	Women	Men
Top causes of death among people 70 years or older	Ischaemic heart disease Alzheimer's disease Stroke Chronic obstructive pulmonary disease Hypertensive heart disease	Ischaemic heart disease Alzheimer's disease Stroke Lung cancer Chronic obstructive pulmonary disease
Top determinants of disability-adjusted life-years among people 70 years or older	Ischaemic heart disease Alzheimer's disease Stroke Chronic obstructive pulmonary disease Low-back pain	Ischaemic heart disease Stroke Chronic obstructive pulmonary disease Alzheimer's disease Lung cancer
Top determinants of years lived with disability among people 70 years of age or older	Low-back pain Age-related hearing loss Chronic obstructive pulmonary disease Falls Alzheimer's disease	Age-related hearing loss Low-back pain Type 2 diabetes Chronic obstructive pulmonary disease Stroke
Top risk factors associated with disability among people 70 years of age or older	High systolic blood pressure High fasting plasma glucose High body mass index Smoking High LDL cholesterol	Smoking High systolic blood pressure High fasting plasma glucose High body mass index High LDL cholesterol

Source: Institute for Health Metrics and Evaluation [website] *(4)*.

Household size is declining and almost half of older women live alone

The average household size is 2.0, a slight decrease from 2.1 in 2008 and below the EU average of 2.3 *(3)*. Data on household living arrangements are limited. According to 2011 data, 58% of older people live with a partner and 34% live

alone. Women are more likely to live alone: 46% of older women live in a single-person household versus 19% of older men *(32)*. The old-age-dependency ratio in 2017, defined as the number of people 65 years and older who are economically inactive divided by the number of people 15–64 years old, is 32.4 (per 100 people 15–64 years old), higher than the EU average of 29.9 *(33)*. This ratio has increased from 27.8 in 2005 and 31.4 in 2010.

Old people enjoy good health status, but there are differences between people with high and low income

Cardiovascular conditions, Alzheimer's disease and chronic obstructive pulmonary disease are the leading causes of death and loss of disability-adjusted life-years among older people. Low-back pain and age-related hearing loss are the most common determinants of years lived with disability, with falls also affecting women and type 2 diabetes affecting men *(4)* (Table 3).

Hazardous alcohol consumption and smoking are more frequent than in the rest of the EU. More than half the people 65 years or older reported high blood pressure in 2014 (Table 4). These data mask important differences in behavioural risks based on income, since indicators show that behavioural risk factors are more common among people with low socioeconomic status *(34)*.

Table 4. Selected measures of lifestyle risk factors and determinants of health

Determinant	Germany (%)	EU 28 (%)	Year
People 65 years or older reporting hazardous alcohol consumption[a]	4.4	3.6	2014
People 65 years or older reporting high blood pressure in the past 12 months[a]	57.1	49.2	
Obese population 65 years or older, measured (%)[b]			
Women	16.1	20.7	2014
Men	20.5	18.8	
Daily smokers by age – 65–69 years[c]			
Women	12.0	11.0[d]	2015
Men	17.0	16.0[d]	
Daily smokers by age – 70–74 years[c]			
Women	7.7	7.8[d]	2015
Men	10	11.0[d]	
Daily smokers by age – 75–79 years[c]			
Women	5.6	5.5[d]	2015
Men	7.8	8.4[d]	
Daily smokers by age – 80 years or older[c]			
Women	2.7	3.3[d]	2015
Men	5.4	5.6[d]	
Risk of poverty or social exclusion for people 65 years or older[b]			
Women	19.0	17.3	2015
Men	12.4	12.8	

Sources: [a]European core health indicators *(33)*; [b]Population statistics at regional level *(3)*; [c]Institute for Health Metrics and Evaluation [website] *(4)*. [d]Western Europe only.

Low risk of poverty, but poverty disproportionately affects women

The rate of poverty or social exclusion in 2017 was 16.7%, lower than the 19.9% average for the rest of the EU. Among older people, this rate was 15.8%, about the same as the EU average. Poverty and social exclusion affect women disproportionately compared with men (Table 4) *(3)*.

Income inequality (the ratio between the total income received by the 20% of the country's population with the highest income and the total income received by the 20% of the country's population with the lowest income) for the entire population in 2017 was 4.6, lower than the EU ratio of 5.3 *(33)*. Income inequality was lower among older people, with a ratio of 3.9, lower than the EU average of 4.1.

Despite longer life expectancy, many older people live with disability or longstanding health problems

Of the 83.4 years of life expectancy, women are expected to live 66.7 healthy life-years versus 65.1 of 78.7 years for men *(3)*. Women reaching age 65 have a life expectancy of 21.3 years versus 18.1 for men (Table 2) *(33)*. Of these, women have 12.4 healthy life-years and men 11.5 *(33)*. Less than half of older people rate their health as being good or very good *(33)*, and life expectancy in good self-perceived health from age 65 years is 17.4 years for women and 15.5 for men. These numbers are slightly above the EU averages *(33)* (Table 5). About 37% of older people reported long-term restrictions in daily activities in 2017, 12 percentage points lower than the EU *(33)*. Table 5 presents other self-rated measures of perceived health.

Key points

Life expectancy is among the highest in the EU. Concomitant with low birth rates, the population is ageing rapidly. Chronic conditions such as cardiovascular diseases, Alzheimer's disease and chronic obstructive pulmonary disease are the leading causes of mortality and disability. A large proportion of older people have longstanding health problems.

According to data from 2012, an estimated 1 572 104 people live with dementia, equivalent to 1.95% of the total population, versus 1.55% for the rest of the EU. Of these, 67% are women and 33% are men *(35)*. Among people 60 years and older, the prevalence of dementia in 2018 was close to 8%, similar to the rest of the EU *(36)*. This prevalence is expected to increase in the next decade because of population ageing. The rates of chronic depression in 2014 were 9.6% for women 65 years or older, lower than the 11.1% average in the rest of the EU. Among men, 7.3% reported depression versus 5.8% in the rest of the EU *(3)*.

Limited data are available on the dental health status of older people. The proportion of people of all ages in 2014 reporting unmet needs for dental care because of financial barriers, waiting times or travelling distances was 0.3%, lower than the 2.8% EU average *(33)*. Perceived poor social support was reported by 20.1% of older women and 18.9% of older men, both higher than the respective EU averages of 18.3% and 18.0% in 2014 *(3)*.

Unpaid caregivers provide a large part of the care at home

As in other European countries, Germany has few data on the status, needs and number of people providing unpaid care. The 2016 European Quality of Life Survey reported that 23% of the population provides unpaid care for a relative, neighbour or friend at least once a week. Disaggregated by sex, these percentages correspond to 20% of men and 26% of women in the total population. These percentages are above the 17% EU average, but the sex distribution is similar. Most caregivers are 35–64 years old (28% of the total population) or 65 years or older (24% of the total population) and represent 5.6% of people 18–64 years old *(37)*.

Table 5. Self-rated measures of perceived health among older people[1]

Measure	Germany	EU 28	Year
People 65 years or older who assess their health as being very good or good (%)[a]	41.8	39.6	2017
Life expectancy (years) in good self-rated health from age 65 years[a]			
Women	17.4	16.6	2016
Men	15.5	15.0	
People aged 65 years or older reporting any longstanding health problem (%)[b]			
Women	64.3	63.2	2017
Men	63.9	60.3	
People aged 65 years or older reporting severe or very severe body pain (%)[b]			
Women	17.4	19.0	2014
Men	10.7	10.2	
People aged 65 years or older reporting severe physical and sensory functional limitations (%)[b]			
Vision, women	4.6	6.8	2014
Vision, men	2.3	4.0	
Hearing, women	9.8	12.0	
Hearing, men	10.4	12.4	
Walking, women	16.9	25.3	
Walking, men	10.6	15.7	
Overall, women	22.4	32.1	
Overall, men	32.9	24.3	

Sources: [a]European core health indicators *(37)*; [b]Population statistics at regional level *(3)*.

Given the still fragmented service delivery, unpaid caregivers often take on the role of care coordinators. Health and long-term care practitioners perceive them as an indispensable stakeholder. Self-help organizations of family caregivers such as the German Alzheimer Society have been an important driver for promoting the participation of unpaid caregivers in decision-making, such as influencing recommendations and legal guidelines by participating in various committees.

[1] Cross-population comparability of self-reported data should be interpreted with caution.

Older people's rights are largely protected and beneficiaries engaged in the development of legislation

The 2013 Patients' Rights Act ensures patients' right to choose providers, informed consent, seeking a second opinion, receiving timely information about treatment, among others. The 2013 Charter of Rights of People in Need of Long-Term Care dictates beneficiaries' right to care, support and treatment; to self-determination and self-help; and to information, counselling and informed consent, among others *(31)*. In addition, beneficiaries have the choice of deciding what information is shared in their eHealth cards and who has access to it. eHealth cards enable collecting and storing health information and electronic medical records *(7)*.

The 2013 Patients' Rights Act prompted the introduction of mandatory complaint management systems. Professional associations are required to set up complaint and arbitration protocols.

Beneficiaries who are harmed by negligent care are entitled to compensation. Practitioners and institutions providing services are required to contract liability insurance *(31)*.

Germany has a long tradition of engaging beneficiaries and the public in general in developing legislation affecting patients. Both the 2013 Patients' Right Act and the 2013 Charter of Rights of People in Need of Long-Term Care had the input of stakeholders at various development stages *(31)*. Beneficiaries are also represented in decision-making bodies in the statutory health insurance system.

Key points

Robust legislation protects older people's rights and inclusion in decision-making. Beneficiaries are entitled to self-determination, counselling and informed consent. There are formal channels for filing complaints and for receiving compensation in case of negligent care.

The first national plan for health literacy was developed in 2018 *(38)*. This plan contains 10 recommendations for promoting health literacy in all areas of daily life and for creating a user-friendly and health-literate health system. Recent studies suggest that beneficiaries rank above those from other European countries in several health literacy outcomes. Health literacy is lower among older people and among those with low educational achievement and income.

Highlights

Germany's population is rapidly ageing because of longer life expectancy and low fertility rates. The proportion of older people is expected to reach 30% by 2050. Longer life expectancy does not always translate into healthy years, since less than half of older people self-rate their health as being good or very good. In a fragmented health and long-term care system, unpaid caregivers play a pivotal role.

Germany has specific legislation aimed at ensuring beneficiaries' rights and facilitating complaining mechanisms. Beneficiaries can also engage in self-care activities and have the right to decide what health information to share electronically and with whom. Overall, the health system is committed to protecting and upholding beneficiaries' rights. Women are overrepresented among unpaid caregivers and are more affected by poverty.

Performance

About this section

Long-term care services coverage and system outcomes such as amenable hospitalizations, falls and ulcers and other preventable adverse events, waiting times and barriers to access are indicators of long-term care system performance. The data presented in this section were obtained from international databases and registries that allow the German system to be compared with those of other European countries.

Germany's Healthcare Access and Quality Index in 2016 was 92 of 100, signalling adequate healthcare access and quality *(4)*. In 2015, about 3 million people received long-term care benefits versus 2.1 million in 1999 *(20)*. Most recipients were women, 83% were 65 years or older and more than one third were at least 85 years old. Nearly three quarters of beneficiaries were cared for at home. Of these, 1.38 million people were cared for by relatives only, while 692 000 received support from home care services. More than 700 000 beneficiaries lived in care homes (Table 6) *(30,39)*.

Table 6. Distribution of beneficiaries of the social long-term care insurance by care levels as of 30 June 2017

Care provision	Home care		Residential care		Total	
Care level	Number of beneficiaries	%, home care	Number of beneficiaries	%, residential care	Number of beneficiaries	%, total care
1	75 607	3.2	3027	0.4	78 634	2.5
2	1 211 569	52.0	191 811	24.7	1 403 380	45.2
3	651 122	28.0	231 233	29.8	882 355	28.4
4	280 731	12.1	222 075	28.6	502 806	16.3
5	108 770	4.7	127 894	16.5	236 664	7.6
Total	**2 327 799**	**100**	**776 040**	**100**	**3 103 839**	**100**

Source: Pflegestärkungsgesetz [Care Support Act] *(40)*.

Although the number of people who need care has generally increased countrywide, there are regional differences. Eastern federal states such as Berlin, Brandenburg, Mecklenburg-Western Pomerania and Saxony-Anhalt have high growth rates (up to 30%). In contrast, Bavaria, Hamburg and Schleswig-Holstein have had increases well below the national average *(41)*.

High hospitalizations rates for ambulatory care sensitive conditions

Estimates for amenable mortality, defined as deaths that could have been prevented by providing appropriate health interventions *(23)*, was 113 per 100 000 population for both sexes versus 126 in the rest of the EU. Disaggregated by sex, amenable mortality was 88.2 per 100 000 population for women and 139.6 for men in 2014, both below the respective EU averages of 97.5 and 158 deaths *(34)*. Hospitalization associated with common chronic conditions comprised 6.3% of all hospitalization and about 1000 discharges per 100 000 population *(36)*. Both are significantly higher than the EU rates.

It has been estimated that 27% of the hospitalizations for ambulatory care sensitive conditions could have been avoided through timely provision of ambulatory care *(42)*. The most common causes of these hospitalizations were ischaemic heart diseases (426 000 hospitalizations, 61% estimated preventability), heart failure (381 000 hospitalizations, 64% estimated preventability) and other diseases of the circulatory system (370 000 hospitalizations, 76% estimated preventability) *(42)*.

The average length of inpatient stay in 2016 for all causes was 8.9 days, higher than the EU average of 7.4. The average of 8.9 days was the same for men and women *(3)*. Hospital discharges were 25 per 100 inhabitants, significantly higher than the EU average of 16 per 100 habitants *(7)*.

The rates of day surgery for high-volume eligible surgical procedures are below EU averages, including cataract surgery (82.5%), inguinal hernia repair (0.3%) and tonsillectomy (4.0%) *(36)*. The level of day case discharges was 677 per 100 000 population, much lower than the average of 7635 per 100 000 population in the rest of the EU (7). The number of inpatient stays is the second highest in the EU and the number of acute care beds is 813 per 100 000 population, the highest in the EU. Bed capacity has been reduced marginally in the past two decades, whereas other countries in the EU have made reductions close to 40% *(34)*.

Accessibility to ambulatory care services in rural areas is often limited by long travel distances, sometimes more than 40 km to access a general practitioner *(42)*. This has negatively affected hospitalization rates for ambulatory care sensitive conditions in rural areas of eastern Germany, eastern Bavaria and the federal states of North Rhine-Westphalia and Saarland.

Key points

Amenable mortality, hospitalization for ambulatory care sensitive conditions and hospitalization for chronic conditions could be reduced by providing timely primary care. Day surgery and day case discharges are lower than the rest of the EU, and the number of inpatient stays is the second highest in the EU.

Waiting time differs between statutory and privately insurance services

There are few data on waiting times. A total of 30.4 women per 100 patients reported waiting times longer than four weeks to see a specialist, longer than the 19.8 rate recorded for men. These rates were among the lowest in OECD countries in Europe for 2015 *(28)*. Waiting times are longer for beneficiaries in the statutory health insurance scheme compared with private health insurance, especially for specialized care *(42)*, partly because providers prefer privately insured beneficiaries, for whom compensations are higher *(42)*.

Regarding satisfaction with health providers, perceived general practitioner quality was among the highest in Europe in 2016: 8.0 of 10 versus 7.3 in the rest of the EU *(36)*.

Between 2010 and 2012, 8681 fatal falls among older people were reported, a rate of 75.1 per 100 000 people 65 years or older *(43)*. This rate was among the highest among the countries providing data, behind Croatia and Hungary *(43)*. Data on pressure ulcers is mostly available from scientific articles. A recent systematic review found that the prevalence of pressure ulcers in nursing homes in 2014 and 2015 varied between 2% and 5% *(44)*.

Financial barriers to care are lower than in the rest of the EU

Financial barriers to care are mostly less common than in the rest of the EU. Men report a slightly higher rate of these barriers than women *(3)*. Table 7 presents further measures.

Table 7. Self-reported unmet needs for specific health care–related services for financial reasons among people 65 years or older, 2014

Type of care	Germany (%)	EU 28 (%)
Medical care, women	2.6	6.1
Medical care, men	2.7	4.7
Dental care, women	4.9	10.1
Dental care, men	5.7	8.3
Mental health care, women	1.8	2.0
Mental health care, men	0.8	1.2
Prescribed medicines, women	2.8	5.6
Prescribed medicines, men	6.3	4.5
Total, women	7.3	13.4
Total, men	7.7	10.8

Source: Population statistics at regional level (*3*).

Highlights

The system performs well according to several indicators, including coverage, cancer survival rates and beneficiaries' satisfaction with care. However, improvements in amenable mortality and preventable hospitalizations are plausible with stronger and better-integrated provision of primary care. Hospital care is strongly emphasized, with a high number of beds and hospital stays that are above EU averages. Shifting resources towards preventive activities and strengthening the role of primary care could improve system performance. There are some data on health outcomes and long-term care services utilization disaggregated by sex, but information for women and men on satisfaction with care and waiting times, among others, is lacking.

Delivery of services

About this section

An important requirement to assess the integrated delivery of long-term care is understanding the services available to older people, the organization of providers and settings, the needs assessment process and the care pathways. Obtaining this information exclusively via desk research may not provide the entire picture. In this section, data obtained from the published literature were complemented with information from semistructured interviews and discussion with key informants, including government representatives, managers, health practitioners and unpaid caregivers.

A comprehensive basket of health services for older people

Health system coverage is universal through public statutory health insurance or private insurance. The country invests substantial resources and, overall, the standard of care is high *(42)*. The Federal Joint Committee (of German Public health agencies) is responsible for determining services covered as part of the statutory health insurance. These include inpatient and outpatient hospital care, prescription drugs, rehabilitative care, hospice and palliative care, among other services *(7)*. Specific coverage is explained below.

Vaccination. Immunization is covered under statutory health insurance *(31)*. In 2014, 46.8% of women 65 years or older were vaccinated against seasonal influenza versus 48.4% of men well below the WHO recommended 75% coverage rate (Table 8) *(33)*.

Preventive and public health services. Statutory health insurance covers disease prevention and health promotion activities, such as early detection programmes, occupational health promotion and physical activity and healthy eating programmes *(31)*. The 2015 Preventive Health Care Act aimed to restructure preventive activities offered at the federal, regional and municipal level to strengthen preventive and health promotion activities, including vaccinations, cancer screening and check-ups *(7)*. It also stipulated requirements for sickness funds to increase expenditure in these activities and to step up screening and early detection programmes *(7)*. Each of the Federal States *(Länder)* has public health offices responsible for surveillance of communicable diseases, health reporting and health education and health promotion, among others *(31)*.

Dental care. Basic dental care and dental check-ups are included under statutory health insurance coverage *(7)*. Some of the sickness funds include

additional services such as prostheses and orthodontics, although with considerable out-of-pocket payments *(34)*.

Diagnostic services. Statutory health insurance covers screening for cervical, breast, skin, prostate and rectum and colon cancer. Screening levels for breast cancer and colorectal cancer are high compared with the rest of the EU. In general, diagnostic and laboratory services are covered under the statutory or private health insurance, although out-of-pocket payments may apply *(31)*.

Mental health. Mental health care is included in the statutory health insurance coverage *(7)*. Mental health is provided under inpatient care and an extensive network of ambulatory care providers that includes community centres, private practices and public health offices. Waiting times for mental health care are long in rural areas.

Medication. Statutory health insurance covers prescription drugs. There is no list of covered pharmaceuticals. Instead, the statutory health insurance system negotiates the prices of all medicines with pharmaceutical companies *(34)* and implements cost-containing measures such as price controls and mandatory discounts *(7)*. Pharmaceutical companies need to demonstrate additional therapeutic benefit for newly patented medicines to be reimbursed by the system.

Medical devices. There is some coverage of medical devices and other non-durables such as eyeglasses and hearing aids. However, medical devices require significant out-of-pocket payments *(34)*. Statutory health insurance covers optometry *(7)*. The regional Länder fund diagnostic and therapeutic medical technology; there is an adequate supply of computed tomography, magnetic resonance imaging scans and other expensive equipment *(31)*. As of 2016, there were 34 magnetic resonance imaging scanners and 35 computer tomography devices per million people versus 17 and 22 in the rest of the EU, respectively *(36)*. The number of magnetic resonance imaging examinations was 134 per 1000 population, whereas the number of computed tomography examinations was 143 per 1000 people. Both are above the EU averages of 76 and 122, respectively *(36)*.

Rehabilitation. Statutory health insurance covers rehabilitation care *(7)*. Rehabilitative services include physiotherapy, speech therapy, occupational therapy, therapeutic appliances and bandages and dressing materials. Renal dialysis is also covered *(31)*.

Palliative care. Statutory health insurance covers palliative care. Most beneficiaries at the end of their lives are cared for by their regular providers. The incurred costs are covered under the beneficiary's general insurance coverage.

Table 8. Screening and vaccination rates among older people, 2014

Measure	Germany (%)	EU 28 (%)
Women 50–69 years old reporting a mammography in the past two years	**73.5**	**68.7**
People 50–74 years old reporting colorectal cancer screening in the past two years	**50.9**	**31.3**
Women	51.9	31.4
Men	49.8	31.3
People 65 years or older reporting influenza vaccination in the past 12 months	**47.5**	**45.9**
Women	46.8	44.5
Men	48.4	47.7

Source: European core health indicators *(33)*.

An around-the-clock call centre provides advice to beneficiaries

The 2011 Care Structures Act underscores that the regional associations of statutory health insurance are responsible for providing after hours service. However, most beneficiaries still prefer to use emergency department services *(7,30,41)*.

Services for unpaid caregivers include flexibility at work and respite care

Numerous services are available to unpaid caregivers providing services for older people at home. First and foremost, unpaid caregivers are covered by statutory pension insurance while providing services to a beneficiary *(45)*. Provided care must amount to at least 14 hours per week at the beneficiary's home, and the caregiver must work less than 30 hours a week or not at all. Employed caregivers who leave their job to care for a family member are also covered by unemployment and accident insurance, with contributions paid by long-term care insurance.

Starting in 2012, workers in companies with at least 25 employees who have a family member in need of care can reduce their workload to 15 hours per week for two years. The employee can take a loan to cover up to 50% of the forgone salary. The employee needs to pay back this loan on returning to work full time *(7)*. There is an additional benefit of taking up to six months care leave, but it is available only to people working in companies with at least 25 employees. The restrictions applied to these benefits have resulted in very limited uptake *(45,46)*.

For beneficiaries who select long-term care services in the form of cash benefits, funds can be used to cover a small compensation for informal care work. An increasing number of households are using the money to employ a live-in immigrant caregiver (often middle-aged women from neighbouring Poland or other eastern European countries).

Key points

The basket of services available to the general population and older people is comprehensive. There are inequalities between the people who are insured in the statutory or private system. Unpaid caregivers are entitled to benefits for combining work and caregiving. The uptake of these benefits is limited because there are conditions for repayment of benefits that are disadvantageous.

Additional benefits for day and/or night care (semi-residential care homes) are granted according to the beneficiary's needs.

Respite care is available to unpaid caregivers who get sick or take holidays. Services include up to six weeks of respite care or up to eight weeks of short-term residential care *(7)*. Informal caregivers may also benefit from advisory services available from long-term care insurance, consultancy assistance and measures to adapt the living environment to care requirements. Unpaid caregivers can also enrol in free training courses *(45)*.

Long-term care insurance is mandatory for the entire population

Social long-term care insurance is mandatory. Long-term care insurance was introduced as a fifth pillar of the social security system in 1995 (Social Code Book, Part XI) and follows the same principles as health insurance in terms of population coverage, access and choice but with substantially higher cost-sharing. Statutory health insurance members are covered under the social long-term care insurance scheme, and those covered under private health insurance are part of the private long-term care provision *(45)*. Contributions to the statutory health insurance are currently 14.6% of the gross wage (up to €53 100 annually) paid in equal shares by employers and employees. Employees may have to pay an additional contribution averaging 1.0% depending on the health insurer. Since 1995, health insurers also collect the long-term care insurance contribution, which is 2.55% for people with children and 2.80% for people older than 23 years without children.

As of 2016, almost 72 million people were insured under statutory health insurance and more than 9 million people were covered under the private system *(45)*. Statutory and private long-term care insurance do not differ in coverage. Premiums in the statutory scheme are calculated based on income, whereas those in the private scheme are graded according to age *(45)*. Coverage under both schemes is limited to a portion of long-term costs, the rest being paid by beneficiaries and families out of pocket *(7)*.

Social services for older people are chiefly provided under the statutory health insurance

Social services for older people, people with mental health conditions and people with disabilities are provided chiefly in highly specialized institutions, although outpatient and community centres play an increasingly important role. These services are in general covered by the statutory health insurance.

Beneficiaries have free choice of providers

The basis of beneficiary involvement in health care is the free choice of insurance fund. Since there is no gatekeeping system, beneficiaries can freely choice providers, including specialists. Beneficiaries in statutory health insurance can opt to take out additional insurance, whereas beneficiaries in private insurance can choose freely among the plans available. Beneficiaries receiving long-term care have the choice of receiving in-kind benefits, cash benefits or a combination of both. They also have a choice of selecting providers *(31)*.

Need assessment for long-term care is determined based on impairments

Eligibility for long-term care had been traditionally limited to people with "restricted competencies in daily life". An advisory committee of experts recommended, in 2013, to expand this definition to better meet the needs and challenges of an increasingly ageing population *(47)*. The social code book, Part XI – Long term care insurance – (§§ 14 and 15, Sozialgesetzbuch XI) was modified accordingly to define people who need long-term care as those "with health-related impairments of their independence or abilities and therefore requiring help from others".

As a result of this new legislation, the previously defined three levels of care needs were replaced by five care grades based on physical, mental and physiological disabilities *(45)*. The new assessment pays greater attention to retaining autonomy while considering mental disabilities, thus fostering an enhanced classification for people with dementia. Trained personnel from the Health Insurance Medical Service or from MEDICPROOF for privately insured beneficiaries are responsible for assessing the degree of autonomy of beneficiaries. The need for long-term care is determined based on impairment in six areas *(48)*: mobility (10%), cognitive and communicative abilities together with behaviour patterns and mental problems (15%), level of autonomy or self-sufficiency (40%), health restrictions, demands and stress resulting from therapies (20%) and structure of everyday life and social contacts (15%). A weighted score is calculated on a scale between 0 and 100, ranging from light impairment of independence (level one, 12.5 to 27 points) to severe impairments of independence with special requirements for nursing care (level five, 90 to 100 points). The resulting scores determines which of the five level of care will be provided *(49)*.

Following the assessment, beneficiaries can opt among cash benefits, benefits in kind or residential care (Table 9). Coverage amounts are capped and conceived as lump-sum contributions to care, so long-term care insurance only covers care costs up to the defined maximum amount. If beneficiaries do not have sufficient own funds to pay the remaining costs, which is mainly the case in residential care, supplementary means-tested social assistance benefits can be claimed from local authorities. Long-term care insurance remains a partly comprehensive insurance *(50)*.

Table 9. Overview of long-term care insurance provisions by care levels, 2017

Care level	Cash benefits (euros)	In-kind benefits (euros)	Residential care (euros)
1	–	–	125
2	316	689	770
3	545	1 298	1 262
4	728	1 612	1 775
5	901	1 995	2 005

Source: Pflegestärkungsgesetz [Care Support Act] *(40)*.

Although general practitioners do not have a gatekeeping role, they advise beneficiaries on care options according to the type of insurance *(31)*. Regarding long-term care, needs are generally assessed after an acute episode requiring hospitalization. Many hospitals include the needs assessment within the management of the patient discharge *(51)*.

Counselling about care options for beneficiaries of statutory long-term care insurance who imminently or manifestly need long-term care is provided in care support centres *(Pflegestützpunkt)* by service providers, insurance companies or local authorities recognized by the long-term care insurance funds *(52)*. Currently, there are about 500 care support centres with density varying by region since some regional governments do not provide this service at all. Expert committees have called for further developing the facilities, especially in rural areas *(41)*. They also recommend enhancing the methods of counselling, such as by expanding mobile consulting.

The Association of Private Health Insurance Companies (Verband der Privaten Krankenversicherung) has established its own counselling service, the Private Care Consultancy COMPASS (Private Pflegeberatung COMPASS). This initiative, available to privately insured beneficiaries and their relatives, offers individual care consultation, consultation visits for beneficiaries at home and training courses for beneficiaries and unpaid caregivers *(53)*. The Association of Private Health Insurance Companies also provides a quality framework that determines the criteria for content, quality requirements, documentation and evaluation of the counselling service *(53)*.

Long-term care services include residential care, in-kind care or cash benefits

Long-term care insurance covers residential care (usually with large cost-sharing), in-kind home care or cash benefits. Residential care encompasses short- or long-term stays in nursing homes, including basic care, social support and aids and services prescribed by a physician such as care for wounds and bedsores. Long-term care insurance does not cover accommodation or food, out-of-pocket expenses for older people were €1930 in average, nationwide. Under in-kind home care, beneficiaries can receive care at home provided by personnel directly hired by the long-term care insurance system. Cash benefits can be used to cover the expenses of being cared for at home by unpaid caregivers or informal workers *(7,48)*. Home care is given priority over residential care regardless of the beneficiary's choice. Benefits do not vary among regions and are not time-limited *(45)*.

Additional benefits complement these services. Beneficiaries can choose part-time residential care in facilities providing day or night care. Those recovering from an intervention or transitioning from hospital into home care are eligible for inpatient short-term care. Beneficiaries being cared for at home can apply for allowances for home reforms or for respite care *(45)*.

Providers can be public or private and provide services under any insurance scheme

With the introduction of long-term care insurance in 1995, the government established an open market for long-term care, meaning that any provider that fulfils the defined criteria is entitled to be contracted by the long-term care insurance fund independently of the existing capacity or types of providers. The aim of opening the market had been to ensure investment in infrastructure and to promote competition among providers. This approach led to an increasing number of private for-profit and non-profit organizations that offer long-term care services. The size of these organizations ranges from very small agencies with fewer than

10 employees in outpatient services to very large holdings (including investment companies) in nursing home care.

Residential care: beneficiaries eligible for care levels from 2 to 5 (5 is the maximum) may apply to receive care in a nursing home. Many care homes also offer short-term care and/or day or night care, such as respite service for informal caregivers. Residents are charged for accommodation and meals. The costs for nursing are covered by lump sums according to the care level ranging from €125 (level 1) to €2005 (level 5). Regular curative nursing care is covered by long-term care insurance (§ 43, Sozialgesetzbuch XI). Expenses for beneficiaries with particularly high need for curative nursing care can partly be reimbursed by their statutory or private health insurance (Sozialgesetzbuch V).

In-kind home care: beneficiaries who forego cash benefits and choose benefits in kind can receive care provided by the Ambulante Pflegedienste. Services include nursing and social services, ranging from assistance with household activities to curative care services prescribed by a physician and covered by the beneficiary health insurance. Following needs assessment, beneficiaries choose a provider organization to agree on a care plan and individual services to be delivered. Beneficiaries may also request additional services such as day care or short-term care. Providers have to obtain a utility supply contract with the long-term care insurance fund, based on compliance with staffing, training and various other regulations. Contracted providers can then balance their accounts with the respective long-term care insurance fund based on performance aggregates, such as enteral nutrition, toileting and mobilization. Box 1 provides the main characteristics of a day care facility that offers comprehensive, holistic care for older people in Berlin.

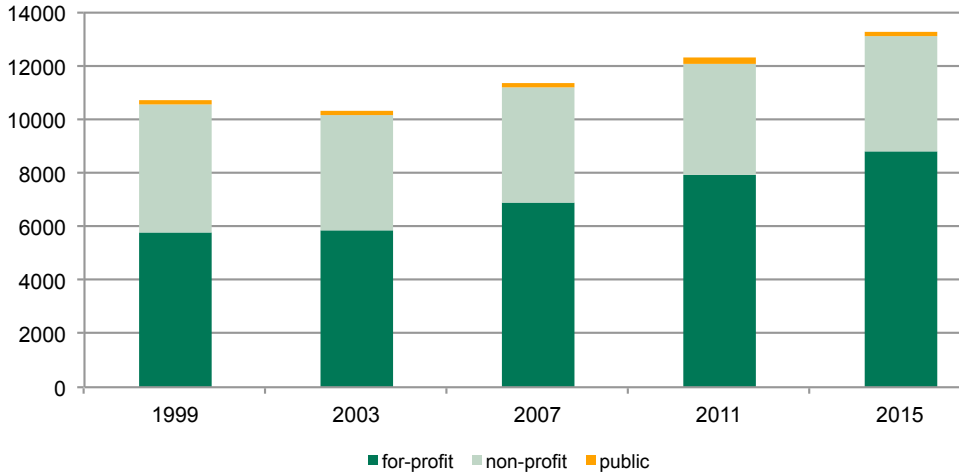
Box 1. Good practice: day care facility Die Aue

The day care facility Die Aue in Berlin hosts 14 people from the Berlin district Charlottenburg-Wilmersdorf every day from 9:00 to 17:00. A team of five care practitioners (geriatric caregivers) and two trainees provide a structured daily routine and psychosocial care in a small facility that is managed by the Diakonie, a large non-profit care provider in Germany. The very cosy, bright and wheelchair-accessible equipped day centre has also an in-house garden that can be used for various activities or just for relaxing on sunny days. All visitors to the day care centre may choose to be picked up at home by a wheelchair-accessible transport service in the morning and to be brought back in the afternoon. Depending on their individual abilities, beneficiaries can choose to participate in a wide range of activities, such as music therapy, gymnastics, walks, excursions, singing, dancing and memory training.

Home and residential care capacity have grown steadily during the past decade

The introduction of long-term care insurance marked a definitive change towards the professionalization of long-term care, with a significant rise in supply structures over the past two decades (Fig 3). Several small providers of home care have been founded in urban areas; both family businesses and large investors bolstered the share of private for-profit providers in residential care from 50.9% in 1999 to 65.4% in 2015 *(20)*. About 13 300 home care providers are now serving more than 692 000 beneficiaries per year.

Fig. 3. Number of home care providers by type of provider, 1999–2015



Source: Rothgang et al. *(20)*.

Residential care is provided by facilities that are mainly supplied by private non-profit and for-profit organizations. The number of care homes has grown by about 35% between 1999 and 2015, with the market share of private providers rising significantly from 34.8% in 1999 to 40.9% in 2015 (Fig. 4).

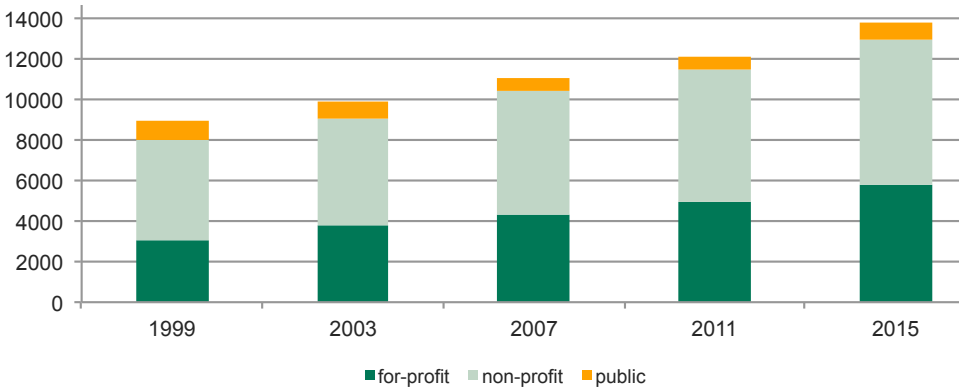
Weak coordination and competition across providers

Information exchange is limited and communication among providers relies on letters provided to patients. General practitioners are not informed when their patients are discharged *(42)*. Integration of care is also hampered by the provider payment mechanisms that result in competition to attract patients. The divide between the statutory and private health insurance schemes influence waiting times and equity in access to care *(42)*. There is limited provision of day surgery, resulting in high-volume of eligible surgical procedures *(7)*. Collaboration with other sectors is also limited.

Key points

The provision of services is highly fragmented. Communication among providers is limited. There are no prespecified pathways of care or discharge plans. There are several disease management and integrated care initiatives at the local level. These programmes are generally showing good achievements.

Fig. 4. Number of residential care facilities by type of provider, 1999–2015



Source: Rothgang et al. *(20)*.

Multidisciplinary practices with general practitioners and specialists are becoming increasingly common, especially in rural settings. These arrangements can either take the form of general practitioners playing the role of the usual provider and referring beneficiaries to specialists within the network or of general practitioners that facilitate communication after hospital discharges or following up with ambulatory care *(42)*. These arrangements generally result in cost-containment and in shared investment among practitioners *(42)*.

There are many initiatives aimed at facilitating the integration of care. These initiatives are usually implemented at subnational levels. The most prominent programmes so far are the Prosper Network of the Knappschaftskasse, the Gesundes Kinzigtal Project and the POLIKUM Friedenau (Box 2).

Disease management programmes for improving outcomes

Starting in 2002, disease management programmes have been established to improve the quality of care and contain costs, promoting coordination and self-management. Disease management programmes are based on a standard contract between all sickness funds working within a region and the regional association of statutory health insurance physicians *(31)*.

Participating beneficiaries enrol voluntarily but are expected to adhere to treatment goals and to participate in disease-specific self-management and education programmes. They receive financial incentives in the form of reduced cost-sharing services, access to additional treatments and discounts in co-payments if they comply with disease management protocols. Participating general practitioners and specialists must fulfil training and infrastructure eligibility criteria and act as case coordinators, ensuring adherence to programme guidelines. In exchange, they receive financial incentives and the opportunity to participate in continuing medical education *(42)*.

There has been considerable uptake of disease management programmes. As of 2015, more than 6.6 million people took part in these initiatives *(34)*. There are disease management programmes for diabetes, asthma, chronic obstructive pulmonary disease and breast cancer. Quality assurance of these programmes is based on routine collection and assessment of treatment data. Despite the high uptake of these programmes, avoidable hospitalizations have remained stable over time, perhaps because of low enrolment or targeting of populations at higher risk of complications *(34)*.

The Association of the Scientific Medical Societies is responsible for coordinating the development of clinical guidelines, including the establishment of methodological guidance and standards for implementation *(42)*. The Institute for Quality Assurance in Health Care, an independent agency that evaluates the benefits and harm of interventions founded in 2015, supports this effort by evaluating guidelines for epidemiologically important diseases *(31)*.

Box 2. Pilot models of integrated care

The Prosper Network of the Knappschaftskasse provides health insurance, long-term care insurance and a pension scheme. The Network has 1.7 million health-insured beneficiaries served by more than 1500 physicians and dentists and several hospitals and rehabilitation centres. Insured beneficiaries are required to seek care within the Network and receive discounted out-of-pocket charges and better coordination of services across levels of care via a central care coordination unit and standardized electronic medical records.

The Gesundes Kinzigtal Project is a health-care management programme providing care to more than 40 000 people in the towns of Gengenbach, Haslach, Hausach, Hornberg and Wolfach in the Baden-Württemberg region. Services focus on managing and preventing chronic diseases, with emphasis on self-management and shared decision-making. The system operates with two statutory health insurance funds and a network of over 50 physicians, all incorporating system-wide electronic health records. The programme has pilot policies to enhance integration of care, including pay-for-performance reimbursement to encourage collaboration among providers and engagement in activities known to enhance treatment, improve quality and lower costs.

The 2004 Statutory Health Insurance Modernization Act facilitates chronic disease management interdisciplinary care provided by medical centres coordinated with ambulatory care centres, hospitals and statutory health insurers. The POLIKUM Friedenau is a prominent example of this model, focusing on case management, health promotion programmes and integrated system-wide electronic health records.

Quality assurance is fragmented and uneven between inpatient and ambulatory settings

There is a system for public reporting of hospital quality, but information from the ambulatory care setting is limited. To address this shortcoming, the Institute for Quality Assurance in Health Care has been tasked with harmonizing quality assurance efforts across both sectors and for developing quality indicators. These indicators can be used as the basis of pay-for-performance reimbursement for hospitals *(34)*.

Hospitals are required to report data on number of beds, staffing, type and volume of services and medical equipment. They also need to provide internal quality management results. Starting in 2012, 182 quality indicators have formed the core of data that every hospital needs to provide *(31)*. There are at least two other initiatives, with the Scientific Institute of the Regional General Funds and the Organization for Transparency and Quality in Health Care routinely collecting data on inpatient care quality *(31)*.

Similar to quality assurance at the inpatient level, several stakeholders are involved in quality assurance in the ambulatory setting. The Federal Joint Committee has prespecified a set of requirements for internal quality management in the practices of providers accredited by the statutory health insurance. Certification for the different services that can be provided depends on meeting training and technical requirements. Recertification is granted on implementing quality improvement and on completing a minimum number of procedures and an evaluation of skills *(31)*. The regional chambers of physicians are responsible for accrediting providers and for setting professional standards for practitioners.

In the past, regional and local authorities carried out social planning in the long-term care sector. With the advent of the open-market approach to long-term care, the regulatory options for local authorities became more limited *(21,53)*. Currently, the "Medical Service of Health Insurance" (Medizinischer Dienst der Krankenversicherung) and the Inspection Service of the Association of Private Health Insurance Companies carry out quality checks and advise residential facilities regarding quality assurance (Sozialgesetzbuch XI, 2017). The related standards and principles for ensuring the quality of residential care are regulated by law. Several standards of care, such as bedsores prophylaxis and falls prevention, management of pain and care of people with chronic wounds, aim at improving quality of care.

The implementation of legal guidelines is the responsibility of the self-governing long-term care insurance funds, embracing regional branches and more than 100 individual sickness funds. Their tasks include accrediting providers, coordinating supply contracts and negotiating reimbursement with providers. The Medical Service of the Federation of Sickness Funds contributes to this effort by coordinating individual assessment of care needs and quality assurance.

Apart from authorizing providers, the "Medical Service of Health Insurance" and the Association of Private Health Insurance Funds have implemented inspection mechanisms to assess the quality of home care services and residential care homes on site. Mutually agreed guidelines have complemented the inspection protocols for all care providers. The current transparency agreements contain 34 items for quality in home care, referring to basic care, prescribed curative nursing care, service and organization. There are 59 quality items for residential care on nursing care and medical supplies, coping with beneficiaries with dementia, social services and daily living, meals and hygiene. These assessments are complemented with a survey of a small sample of residents.

The results of the Health Insurance Medical Service quality activities are synthesized, graded and publicly reported on a dedicated public website *(56)*. Although this practice has contributed to improvements, the reporting system has proven to be unsatisfactory according to officials of the Health Insurance Medical Service *(57)*. Rather than improving quality, it is argued that provider organizations adapted their reporting practices to the inspection requirements, which resulted in very good grades for almost all organizations (58). As a result, the system of grades will be replaced with a new procedure currently under development *(59)*.

In addition to improving and extending access to provisions of the long-term care insurance, the latest reforms in Germany's health and long-term care systems have aimed at the following goals.

The 2015 Preventive Health Care Act (Präventionsgesetz) enacted disease prevention activities in long-term care settings, especially in residential care. Services include vaccination, early detection and risk assessment, increased financial support for health promotion and for self-help groups as well as measures to improve coordination among stakeholders at the various policy levels and branches of social insurance, such as the National Prevention Conference and the Federal Association for Disease Prevention and Health Promotion (http://www.bvpraevention.de).

Following the adoption of the 2015 Hospice and Palliative Care Act, end-of-life care became an explicit part of the long-term care insurance mandate. Collaboration agreements between nursing homes and general practitioners and specialists have become obligatory. Nursing homes are also obligated to collaborate with mobile hospice services and to inform the public about their collaboration with relevant networks

Highlights

Overall, the health system is highly fragmented. Integration of care is hampered by structural differences in service provision and provider remuneration between primary and secondary settings and between the statutory and private health insurance schemes. There is no gatekeeping system, and communication between providers is very limited, thus hampering multidisciplinary collaboration.

Long-term care insurance covers residential care, in-kind home care or cash benefits. The introduction of an open market for long-term care has stimulated a marked increase in provider capacity for long-term care. There are several mechanisms for quality assurance and accreditation of providers. Information on long-term care –related services utilization, including use of benefits available to unpaid caregivers and data related to clinical pathways, is not disaggregated by sex.

System enablers

About this section

Integrated services delivery is fostered by implementing measures that enhance governance, funding, adequate staffing and information technology platforms. This section describes these system enablers. The data was collected from published evidence, databases and from consultation with stakeholders.

The Federal Ministry of Health is responsible for long-term care

There is a clear distinction between the regulation of acute health care (regulated under Sozialgesetzbuch V) and long-term care (regulated under Sozialgesetzbuch XI). Besides curative nursing care in community and residential settings covered by health insurance, long-term care services are funded based on capped amounts. This partial funding of care and the market-oriented governance are significantly shaping service delivery in terms of growth and geographical distribution *(45,47)*. For-profit providers have given priority to provision in urban, more densely populated areas, while rural areas often remain underserved. This applies not only to long-term care services but also to primary and specialist care. The care market is therefore primarily driven by supply structures rather than demand *(45,47)*. Despite several regional initiatives, a specific challenge remaining is the lack of incentives and funding for networking activities, such as specialist doctors and geriatricians in care homes, coordinating different types and providers of care in the community and identifying gaps in the local infrastructure.

Governance in health is shared among the federal and regional *(Länder)* authorities. The former provides the legal framework, and the latter coordinate medical education, inpatient capacity and funding schemes for providers. Besides these stakeholders, self-governing bodies of insurers (sickness funds), service providers and professional associations play an important role in governance. The Federal Joint Committee, composed of the national associations of physicians and dentists, the German Hospital Federation and the National Association of Health Insurance Funds, is the authority responsible for determining the statutory health insurance benefits package, quality assurance measures and other collective regulations *(7)*.

The Federal Ministry of Health, specifically the Department of Long-Term Care, is responsible for governance in long-term care. The Long-Term Care Insurance Act (Sozialgesetzbuch XI) and regulations on the support for care as part of social assistance regulations in Sozialgesetzbuch XII (§§ 61 ff.) comprise the main legislation regulating long-term care. The Long-Term Care Insurance Act was amended by the 2002 Care Supplementary Act (Pflegeleistungs-Ergänzungsgesetz), the 2008 Further Development of Long-Term Care Act

(Pflege-Weiterentwicklungsgesetz) and the 2012 Care Reorientation Act (Pflege-Neuausrichtungs-Gesetz) *(60)*.

Local authorities also contribute to long-term care financing in their role of funders of last resort by providing social assistance to cover high cost-sharing (in particular co-payment for board and lodging in residential care) for families that cannot afford these payments from their income, savings or assets. The introduction of long-term care insurance has reduced the number of social assistance recipients supported for high long-term care cost. The role of local authorities is being reinforced through the promotion of neighbourhood development (*Quartiersentwicklung*, see Box 3) and the allocation of care counselling to municipalities.

Local authorities are taking a more prominent role in coordinating health and long-term care for older people with disabilities

There is growing interest in improving counselling for people in need of care and their caregivers, in particular by enhancing the coordination of health services and long-term care and by strengthening the role of local authorities. This is in accordance with the considerations of many experts, who maintain that care counselling needs socio-spatial anchoring and reliance on existing regional and local infrastructure *(54)*. Long-term care insurance funds finance care counselling for beneficiaries and are reluctant to delegate this task to local authorities without having control over the content of these programs.

Expenditure on health is among the highest in Europe

Health expenditure per capita and as a percentage of GDP in 2017 were among the highest in the EU. Health expenditure per capita was €4160 and total health expenditure represented 11.3% of GDP (36) (Table 10). Public expenditure on health in 2015 was 9.4% of GDP, and 16.0% of total government expenditure was dedicated to health *(7)*. Both are higher than the respective 8.0% and 15.0% EU averages *(7)*. Public sources accounted for 78% of total expenditure on health, similar to the 78.4% EU average. Public expenditure on health is chiefly funded through labour income and a government subsidy *(7)*.

Private and out-of-pocket spending were 16.5% and 12.5% of total health expenditure, respectively, both below the EU averages of 21.6% and 15.9% *(7)* (Table 10). Out-of-pocket payments are required for medical goods, over-the-counter medications, eyeglasses, hearing aids, dental care and, notably, long-term care (one third of out-of-pocket spending) *(34)*.

Box 3. Good practice: neighbourhood development *(Quartiersentwicklung)*

Quartier is the German word for neighbourhood, defined as a social space in which people contribute, take responsibility and support each other. According to the Ministry of Social Affairs and Integration of Baden-Württemberg, *Quartiersentwicklung* has become a keyword in developing opportunities to reorganize intergenerational exchange in general but also mutual support in case of care needs. Systematic neighbourhood development is based on the needs and desires of residents and aims to facilitate self-determined life in the familiar setting, especially for older people. Due to demographic change, the state, regions and especially municipalities are asked to take responsibility in promoting new and expanding existing structures for all age groups, including delivering health and social services arrangements. Various programmes and projects are implementing this approach, which is highlighted in the following by two examples.

Living in Old Age Programme
The aim of the Living in Old Age Programme, supported by the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth, is to promote independent, self-determined living for older people. The Programme encompasses shared housing, age-appropriate conversion and adaptation of housing, assisted living, counselling services and advice, neighbourhood help and social services (https://www.serviceportal-zuhause-im-alter.de).

Strategy Quartier 2020 – Designing. Together. Baden-Württemberg
Older people who need care and support should be able to remain living in their usual surroundings as long and independently as possible – in urban as well as in rural areas. To achieve this goal, the Ministry of Social Affairs and Integration in Baden-Württemberg developed the strategy Quartier 2020 – Designing. Together. The strategy, in which municipalities actively participate, is planned as a continuous process that spans over several years. As a first step, the ministry has launched a competition to generate ideas. Municipalities can win up to €100 000 for implementing their ideas to boost neighbourhood concepts. A total of €2.5 million is available for the competition (https://sozialministerium.baden-wuerttemberg.de/de/soziales/generationenbeziehungen/quartiersentwicklung).

Table 10. Selected system enablers: health expenditure and workforce

Measure	Germany	EU 28	Year
Expenditure in health (euros per capita, adjusted per purchasing power)[a]	4160	2773	2017
Expenditure on health (% of GDP)[a]	11.3	9.6	2017
Expenditure on health as a percentage of total government expenditure (%)[b]	16.0	15.0	2015
Out of pocket (% of total expenditure on health)[b]	12.5	15.9	2014
Expenditure on long-term care (% of GDP)[c]	1.3	1.3	2016
Number of physicians (per 100 000 population)[b]	414	344	2015
Number of general practitioners (per 100 000 population)[b]	66	78	
Number of nurses (per 100 000 population)[b]	1334	833	

Source: [a]Health at a glance: Europe 2018: state of health in the EU cycle *(36)*, [b]Joint report on health care and long-term care systems & fiscal sustainability. Country documents – 2019 update *(7)*, [c]The 2018 ageing report: economic and budgetary projections for the 28 EU Member States (2016–2070) *(61)*.

Inpatient and outpatient or rehabilitative care in 2015 accounted for 27.4% and 22.3% of total health expenditure, respectively, whereas expenditure in pharmaceuticals was 14.3%. These numbers were pretty much the same as in the

rest of the EU (7). Expenditure on retail pharmaceuticals was €572 per capita in 2016, 15% of which was out of pocket *(34)*. The former was the highest figure in the EU, and the latter was among the lowest, above only Luxembourg. The market share value of generics was close to 80% *(36)*.

Internationally reported expenditure on long-term care in 2016 was 1.3%, the same as the EU average *(61)*. However, this number needs to be taken with caution, since it excludes the significant out-of-pocket payments required for residential care *(20)*. The percentage of overall health expenditure allocated to long-term care was 16%, similar to the 13% EU average *(36)*. About two thirds of long-term care expenditure was devoted to in-kind benefits, especially for covering residential care. The remaining 32.3% of long-term care expenditure was devoted to cash benefits (Table 11) *(7)*.

Table 11. Selected system enablers: public expenditure on long-term care, 2016

Measure	Germany	EU 28
Public expenditure on long-term care as a percentage of GDP	1.3	1.3
Expenditure in long-term care as a percentage of total health expenditure	16.0	13.0
In-kind benefits (% of expenditure on long-term care)	67.7	84.4
Residential care benefits (% of in-kind benefits)	70.7	66.3
Services provided at home ((% of in-kind benefits)	29.3	33.7
Integration centres for occupational therapy	32.3	15.6

Source: Joint report on health care and long-term care systems & fiscal sustainability. Country documents – 2019 update *(7)*.

Apart from public long-term expenditure paid by the long-term care insurance funds and the social assistance budgets of local authorities, people who need care and their families account for about one third of total long-term care expenditure. These costs are mostly out-of-pocket payments (Table 12).

Table 12. Expenditure on long-term care by source of funding, 2015

Source of funding	Billions of euros	% of public or out-of-pocket expenditure	% of total expenditure
Public expenditure	33.7	100	80.1
Social long-term care insurance	28.3	83.7	67.1
Private long-term care insurance	1.0	3.0	2.4
Social assistance	3.7	11.3	9.0
Other (scheme for war veterans)	0.7	2.0	1.6
Out-of-pocket expenditure (excluding opportunity costs)	8.4	100.0	19.9
In residential facilities	2.7	32.1	6.4
In home care	5.7	67.9	13.5
Total	47.826		100.0

Source: Rothgang et al. *(20)*.

The acceleration of population ageing raises concerns about the social and economic sustainability of the current levels of care. The general policy aims to maintain independence and autonomy in life choices and to facilitate that people who need care can live at home, as long as possible. This policy is also a strategy to avoid more costly residential care and thus to secure the future sustainability of the health and social systems.

Differences between statutory and private health insurance raise concerns about equity

Universal health coverage is ensured through mandatory statutory or private health insurance. Statutory health insurance covers about 90% of the population and is mandatory for employees not exceeding a specified income threshold, set at €60 750 per year in 2019. Coverage is extended to spouses and dependent children without additional cost. Students, unemployed people and pensioners are required to obtain statutory health insurance *(31)*. The statutory health insurance comprises 110 sickness funds, which are non-profit public law corporations that are financially and managerially independent *(7)*. They are legally obligated to insure people regardless of pre-existing health conditions. The premiums depend on income, but the benefits package is standard. Private insurance is mandatory for people above the specified income threshold, self-employed people and civil servants. Premiums depend on the insured person's health status and not on income. Insuring spouses and children requires additional contributions *(7)*.

People with high incomes, who tend to be healthier, can opt out of the statutory health system. Physician payments in ambulatory care and other services are higher for privately insured beneficiaries. As a result, treating these beneficiaries brings higher income for some providers, thus raising equality concerns in health provision and the potential of longer waiting times for statutory health insurance beneficiaries *(34)*.

Germany has no gatekeeping system. Beneficiaries have free choice of providers, including general practitioners, ambulatory care and hospital care *(42)*. Recent legislation has encouraged the implementation of a general practitioner–centred model; enrolment is voluntary and beneficiaries enjoy shorter waiting times, reduced co-payments and out-of-office hours *(42)*. Private, for-profit general practitioners provide primary care; they charge different rates for statutory and privately insured beneficiaries.

Provider payment mechanisms do not enable integration

Physicians, nurses and other health practitioners working in hospitals or long-term care institutions are salaried. Those employed by the public sector are paid pre-established tariffs, whereas those in the private sector are paid based on diverse reimbursement schemes *(7)*. The services that outpatient physicians can bill for reimbursement from the statutory health insurance are based on a fee schedule of flat rates and fees for services, the *Einheitlicher Bewertungsmaßstab (7)*. Pharmacists, dentists, midwives and other practitioners in ambulatory settings are paid based on predetermined fee-for-service schemes or ranges *(7)*. Hospitals recoup costs of care from statutory and private health insurers, while the *Länder* fund investments in infrastructure *(7)*.

Reimbursement mechanisms do not incentivize physicians sufficiently to engage beneficiaries in disease prevention activities or disease management and there are limited enticements for collaboration among physicians or health providers across settings of care *(42)*. There are pilot projects for introducing pay-for-performance schemes, such as the Gesundes Kinzigtal integrated care initiative. Gesundes Kinzigtal provides additional payments to providers according to performance and engagement in activities known to benefit treatment quality and cost containment. Some sickness funds have piloted similar initiatives and use these as arguments to attract clients. There is a lack of financial incentive for cooperation among sickness funds *(42)*.

The number of practitioners is high and growing but regional differences persist

Not only are the number of physicians and nurses per 100 000 population among the highest in the EU, these ratios have continued to increase during the past decade. Germany has 414 physicians and 1334 nurses per 100 000 population and 66 general practitioners per 100 000 population *(7)*. In inpatient care, and given the elevated numbers of available beds, the ratios of practitioners to hospital beds are low *(34)*.

Another issue is the low ratios of health practitioners in rural areas, especially in the eastern *Länder*. The 2015 Act to Strengthen Health Provision in the statutory health insurance system has measures to address this issue. These include facilitating the mobility of providers to these areas, enabling municipalities to set up health centres and allowing hospitals to provide outpatient care *(34)*.

The Federal Joint Committee uses data from regional chambers of physicians, nurses and pharmacists and numbers of practitioners in each region to regulate staff supply. They combine this information with data on employment and the qualifications of practitioners accredited to work to plan staffing requirements. There are prespecified methods to quantify the number of the different types of practitioners per region *(31)*.

Increasing demand for long-term workforce

Key points

Health expenditure per capita and as a percentage of GDP are among the highest in the EU. Physician and nurse ratios are also well above the EU averages. Given this level of investment in health, the system would be expected to perform better regarding indicators such as amenable mortality, length of hospital stay and level of day care discharges.

The regional chambers of physicians are responsible for granting accreditation to providers and for overseeing continuing education for physicians. The federal government, the federated *Länder* governments and other professional associations have the competencies of regulating training and continuing education programmes for health practitioners. The federated *Länder* governments set the general rules for medical education *(31)*.

Most long-term care is still provided at home by unpaid caregivers, such as spouses, partners or adult children. A professionalization process has taken place, with 355 000 providers in home care and 730 100 practitioners in residential care in 2015 *(20)*. Nevertheless, the increased demand for qualified

personnel is becoming noticeable, especially in rural regions *(41)*. The Federal Employment Agency reports that job offers for qualified geriatric nurses are vacant on average five months. In recent years, various measures have been taken to set the course for improving this situation:

- The range of services offered and funded by long-term care insurance has been broadened through the latest acts strengthening long-term care, including the support of new types of professionals – additional social services personnel in care homes – and easily accessible (non-profit) services, especially in-home care, for support in everyday life.

- A training and qualification campaign for geriatric care has been implemented with the aim of improving training and continuing education opportunities and making the profession more appealing. Framework conditions will also be improved by raising the minimum wages for health practitioners.

- A new Nursing Profession Act (Pflegeberufegesetz) adopted in 2017 to be implemented from 2020 will introduce a new concept of generalist nursing training with a uniform qualification *(Pflegefachfrau/Pflegefachmann)*. The two-year generalist nursing training will include comprehensive skills for work in hospitals, nursing homes, day-care facilities and home care. The programmes will be funded via a joint training fund and will be free of charge for students, who will also be entitled to training compensation.

- A new documentation concept *(62)* has been developed with the support of the Federal Ministry of Health to reduce bureaucracy and to make documentation in home care as well as in residential facilities more efficient and less time-consuming. About 11 000 services and facilities have already opted for the new model.

- Recent pilots promoting the professionalization of new roles, specifically telemedicine and expanding the scope of work of nurses and physician assistants in the ambulatory care, have been launched *(42)*. Within this context, these practitioners have taken on the roles of practice assistants and case management, including home visits, diagnostic tests and care design for multimorbid beneficiaries. Other initiatives include earmarked funds to provide funding to general practices in relation to the function and performance of physician assistants *(42)*.

Despite these endeavours, there are concerns related to quantity and quality of the future workforce in health and social sectors. Providers with specific training are needed in various fields, including geriatric care in hospitals and in long-term care facilities, where multimorbidity is increasing. Regarding those acquiring a generalist education, there is concern that new providers will not be attracted to long-term care facilities, where salaries are lower and working conditions are worse than in hospitals.

There are several strategies to ensure the responsible use of medicines

Besides the development and implementation of clinical guidelines, medicine prescription and health decision-making in general is informed by health technology assessment. There are two main role players in health technology assessment: the German Agency for Health Technology Assessment, responsible

for the health technology assessment information system, and the Institute for Quality and Efficacy in Health Care, which commissions assessments and makes recommendations on which technologies to include or exclude from statutory health insurance coverage *(7)*.

Other measures to ensure the responsible use of medicines are an electronic medication plan embedded within the eHealth card initiative, with information on beneficiaries' drug interactions and verification of drug treatment *(7)*. The eHealth card and data collected at the provider level allow prescription patterns to be monitored, which need to adhere to prescription guidelines. The statutory health insurance sets target prescription volumes for general practitioners and physicians in the various medical specialties *(31)*. Providers exceeding these targets may be asked to justify the over-prescription or to pay back the difference in overprescribed medications.

Interoperability of information technology platforms remains a challenge

There is no comprehensive information technology infrastructure working nationwide and across health providers *(42)*. The most prominent information technology initiative to date is the eHealth card, rolled out within the statutory health insurance system. This initiative has not been extended to the private insurance sector.

Introduced in 2011, the eHealth card initially contained beneficiaries' administrative data. The eHealth law proposal for 2015 accelerated the deployment of the eHealth card, including the addition of essential medical information, relevant emergency data, an electronic medication plan and patient-specific medication histories and information on drug interactions *(7)*. The new law also incorporates financial benefits for incentivizing providers to keep records up to date and beneficiary access to their own health data *(42)*. Beneficiaries are entitled to deciding which data are stored and which providers can have access *(7)*. The design, coordination and further development of the eHealth card are the responsibility of Gematik, a limited liability company owned and funded by the Federal Ministry of Health (holder of 51% of the company shares), the Federal Medical Association, the Federal Chamber of Dentists, the German Pharmacists Association, the German Hospital Association, the Central Association of Statutory Health Insurance, the National Association of Statutory Health Insurance Physicians and the Federal Dental Association *(55)*. The eHealth card has been rolled out only within the statutory health insurance system. Besides this initiative, there are no comprehensive information technology infrastructures allowing interoperability among providers.

Several other initiatives are working at different levels and settings and are responsible for collecting and analysing relevant data. The Federal Statistics Office compiles and collects an important volume of health statistics. The Federal Association of Sickness Funds and the Federal Association of Statutory Health Insurance Physicians are required to report data on the main characteristics of their membership and of their financial structure *(31)*. The Advisory Council for the Assessment of Developments in the Health Care System reports to the Ministry of Health every two years on information collected on health provision and clinical impact *(31)*. The Scientific Institute of the Regional General Funds and the Organization for Transparency and Quality in Health Care collect and report data on hospital care quality.

Interest is growing at the federal level to promote telemedicine. Telemedicine has taken three forms: telemonitoring of patients, communication among providers and treating beneficiaries remotely. Most of these projects have been pilots that have focused on chronic conditions. They have not been implemented nationwide yet *(42)*.

Highlights

There are important system enablers for ensuring proper delivery of care, including financial resources, a high number of qualified professionals and various information technology initiatives that facilitate information collection and sharing. Many actors are involved in health and long-term care governance, including the federal government, regional and local authorities and the self-governing associations of service providers. If not aligned at system level, these viewpoints and interests may hamper the implementation of measures needed to foster the integration of health services delivery.

Policy pointers

The establishment of a long-term care insurance scheme in 1995 did not initially incorporate measures for integrated long-term services delivery. Several amendments that were adopted during the past 20 years sought to address some of these initial caveats but moved long-term care towards a genuine system of its own rather than a model of coordination and integration of the social and health sectors. The balance between top-down guidance and the local delivery of person-centred care remains a challenge. The distinct care packages purchased by the long-term care insurance funds call for more coordination efforts around the needs of beneficiaries, their families and caregivers. The rationale of insurance-based funding has been successful in quantitative terms by boosting service supply of home care and of residential care but to the detriment of coordination and integration. Additionally, beneficiaries face steep out-of-pocket contributions particularly for residential care, which is burdensome and often a barrier to appropriate care.

The following reflections on the ways ahead attempt to address these challenges.

Strengthening the role of primary care can foster integration of care

Strengthening primary care provision could facilitate interaction with beneficiaries and the implementation of preventive programmes to manage chronic conditions and other ambulatory care sensitive conditions proactively. The role of general practitioners can be expanded to take on a case manager role, coordinating communication after hospital discharge, following up with ambulatory care, referring beneficiaries to specialists and overall serving as linkage at points of transition between levels of care and sectors. The 2015 Act to Strengthen Health Provision in the statutory health insurance system is an important measure that, if properly implemented, could reinforce the role of general practitioners. Both the commitment to ensure proper supply of physicians in urban and rural areas and the professionalization of non-physician personnel would be means to lessen the burden of and expand the role of general practitioners in the system *(7)*.

Promoting outpatient rather than inpatient care could reduce costs and improve performance

Health expenditure is high, there are many practitioners providing services and the number of hospital beds is among the highest in the EU. These data, together with the level of expenditure on pharmaceuticals, may signal overprovision of services with lower than expected efficiency. The rates of outpatient contact and inpatient stays and discharges are among the highest in the EU. The rates of hospitalization for chronic conditions and ambulatory care sensitive conditions remain high, and amenable mortality could be further reduced.

Strengthening primary care provision can help shifting care from the inpatient setting to outpatient care. Improving discharge procedures and coordination among providers can reduce the duration of hospitalization. Day surgery and day case discharges can be favoured, once again via coordination with the primary and ambulatory care settings for follow-up.

Further measures include strengthening out-of-hours services and educating beneficiaries to seek care proactively in the primary care setting as opposed to the emergency departments, where appropriate. Regarding long-term care, the development of new innovative care concepts, such as introducing mixed and flexible care teams consisting of professional care, outpatient facilities, families and volunteers, to support home care for the person who needs care can delay inpatient care for older people.

Rolling-out pilot projects on integrated care

Pilot projects of care integration have focused mostly on interdisciplinary care provided by medical centres coordinated with ambulatory care centres, pay-for-performance reimbursement to encourage cooperation among providers and disease management via self-management and shared decision-making. These pilot projects have resulted in cost containment, a decline in overuse of services and increased quality of care.

The experience with these pilots so far indicates that the system could benefit from strengthening integrated service provision. These pilot projects could be generalized in other parts of the country, promoting integrated projects of care that can benefit beneficiaries across sickness funds. Standard needs assessment between statutory and private insurers should be implemented to ensure equality.

Disease management programmes have proven popular and uptake is high. However, they have not resulted in reducing avoidable hospitalization to the extend expected *(42)*. Disease management programmes could benefit from targeting beneficiaries who need more coordination of care, which may require proactive needs assessment at the primary care level as well as coordination with other measures to reduce avoidable hospitalization.

Corresponding measures for integrating care in long-term care service provision are outlined in the recently developed WHO ICOPE guidance for integrated health and social services for older people *(63,64)*. The ICOPE framework and tools include a scorecard to measure the level of implementation of integrated care for older people across services and systems. This scorecard has been drafted as a blueprint and guidance to design care pathways and strengthen governance *(64)*.

Standardizing quality assurance through the Institute for Quality Assurance in Health Care can help foster the integration of care and improvements in service delivery. This should be accompanied by rewarding providers for coordination and integration efforts. There can also be additional incentives to support rehabilitation and integrated care delivery across sectors that are oriented towards the individual resources and needs of patients or users.

Reducing inequalities in health provision

Mortality, morbidity and engaging in lifestyle risk factors are higher among low-income residents. Integration of care and strengthening primary care provision should consider these inequalities and promote disease prevention and health promotion activities among this segment of the population. The Preventive Health Care Act's mandate for increasing funding for these activities is a fitting starting-point to achieve this goal *(7)*.

One difference between the statutory and the private insurance schemes is that reimbursement of services for privately insured patients is higher. Treating these beneficiaries brings more income for some providers, leading to longer waiting time for statutory health insurance beneficiaries and raising equality concerns in health provision *(34)*. Common governance and political will are needed for the entire system to address inequalities across insurance schemes.

There is an important legislative agenda and political will to enact reforms to the health system to increase equality in service provision, access and sustainability. The 2015 act on the further development of the statutory health insurance system's financial structure and quality is an important reform aimed at granting greater financial autonomy to health insurance funds while containing the wage-related costs of employers. Measures include focusing on quality in health provision, freezing the employers' share of the health insurance contributions and lowering the uniform contribution rate of health insurance funds. The reform of the market for pharmaceutical products has also had important implications for reducing expenditure in pharmaceuticals. Key measures of this ongoing reform include verifying the additional therapeutic benefit of new medicines and introducing price negotiations with pharmaceuticals.

Improving benefits for unpaid caregivers

Various measures have been taken to strengthen the potential of informal caregivers, such as the introduction of short-term paid leave to organize long-term care for relatives. Nevertheless, these measures currently insufficiently address the gender and socioeconomic dimensions of informal care. Uptake of benefits for working unpaid caregivers is limited, since they are required to pay back salaries while providing care. There are also differences in benefits according to the size of the company where the employee works. To increase uptake and lesser the burden of unpaid caregivers, there is a need to standardize benefits and to increase funding to at least partly relieve the financial exposure of unpaid caregivers.

Advancing gender analysis to elicit needs of women and men

Collecting and analysing data disaggregated by sex is important to better understand the sex differential but not enough to understand the root cause of gender inequalities in the demand for and supply of long-term care. A proper gender analysis is needed to elicit the specificities of the needs of men and women regarding health and access to services. Currently there is evidence that women are disproportionately affected by poverty and self-report worse health outcomes, whereas men engage more often in lifestyle risk factors. While there is data available on health outcomes disaggregated by sex, it would be important to monitor long-term access, utilization and satisfaction of quality care among women and men to identify, for instance, potential biases in service provision.

Addressing staff shortages in long-term care

The shortage of qualified specialists must be addressed vigorously by further developing and promoting the long-term care professions, including working conditions and remuneration. Special attention must be given to the impact of the latest reform of nursing education and a potential decline of the specialized workforce in long-term care for older people. It is also important to encourage and support the development of new innovative concepts, such as using robotics as technical assistants. New legislation aimed at improving the working conditions of hospital workers, such as reconciling work and family life, reducing patient ratios and strengthening quality of care as a criterion for remuneration *(7)* should help in these endeavours.

Enabling the interoperability of the information technology infrastructure across providers and insurance schemes

The eHealth card programme allows the collection and storing of essential medical information, relevant emergency data and electronic medication plans for patients in statutory health insurance. However, this initiative has not been extended to the private insurance sector. Moreover, there is a need to further expand information technology to foster communication among providers and to facilitate periodic standardized regional data collection and analysis to support evidence-informed municipal and regional care demand planning.

References

1. Global strategy and action plan on ageing and health. Geneva: World Health Organization; 2017 (https://www.who.int/ageing/WHO-GSAP-2017.pdf?ua=1, accessed 2 December 2019).

2. Global Health Observatory data repository [online database]. Geneva: World Health Organization; 2019 (http://apps.who.int/gho/data/node.home, accessed 2 December 2019).

3. Population statistics at regional level. Brussels: Eurostat; 2019 (https://ec.europa.eu/eurostat, accessed 2 December 2019).

4. Institute for Health Metrics and Evaluation [website]. Seattle: Institute for Health Metrics and Evaluation; 2019 (http://www.healthdata.org, accessed 2 December 2019).

5. Barbazza E, Langins M, Kluge H, Tello J. Health workforce governance: processes, tools and actors towards a competent workforce for integrated health services delivery. Health Policy. 2015;119:1645–54.

6. World report on ageing and health. Geneva: World Health Organization; 2015 (https://apps.who.int/iris/bitstream/handle/10665/186463/9789240694811_eng.pdf?sequence=1, accessed 2 December 2019).

7. Joint report on health care and long-term care systems & fiscal sustainability. Country documents – 2019 update. Brussels: European Commission; 2019 (https://ec.europa.eu/info/sites/info/files/economy-finance/ip105_en.pdf, accessed 2 December 2019).

8. Spasova S, Beaten R, Vanhercke B. Challenges in long-term care in Europe. Eurohealth. 2018;24:7–12.

9. Assessing health services delivery performance with hospitalizations for ambulatory care-sensitive conditions. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0010/305875/Assessing-HSD-performance-with-ACSH.pdf, accessed 2 December 2019).

10. Strategy and Action Plan for Healthy Ageing in Europe, 2012–2020. Copenhagen: WHO Regional Office for Europe; 2012 (http://www.euro.who.int/__data/assets/pdf_file/0008/175544/RC62wd10Rev1-Eng.pdf?ua=1, accessed 2 December 2019).

11. Strengthening people-centred health systems in the WHO European Region: framework for action on integrated health services delivery. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0004/315787/66wd15e_FFA_IHSD_160535.pdf, accessed 2 December 2019).

12. The Thirteenth General Programme of Work, 2019–2023. Geneva: World Health Organization; 2019 (https://apps.who.int/iris/bitstream/handle/10665/324775/WHO-PRP-18.1-eng.pdf, accessed 2 December 2019).

13. Beyond the mortality advantage: investigating women's health in Europe. Copenhagen: WHO Regional Office for Europe, 2015 (http://www.euro.who.int/__data/assets/pdf_file/0008/287765/Beyond-the-mortality-advantage.pdf?ua=1, accessed 2 December 2019).

14. Health status [online database]. Paris: Organisation for Economic and Co-operation and Development; 2019 (https://stats.oecd.org/Index.aspx?DatasetCode=HEALTH_STAT, accessed 2 December 2019).

15. Strategy on women's health and well-being in the WHO European Region. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0003/333912/strategy-womens-health-en.pdf?ua=1, accessed 2 December 2019).

16. Strategy on the health and well-being of men in the WHO European Region. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0003/378165/68wd12e_MensHealthStrategy_180480.pdf?ua=1, accessed 2 December 2019).

17. Transforming our world: the 2030 Agenda for Sustainable Development. New York: United Nations; 2015 (https://sustainabledevelopment.un.org/post2015/transformingourworld, accessed 2 December 2019).

18. Hagen K, Rothgang H. Erfolge und Misserfolge der Pflegeversicherung – Ihre Weiterentwicklung bleibt notwendig [Successes and failures of long-term care insurance – further development remains necessary]. Vierteljahreshefte zur Wirtschaftsforschung. 2014;83:5–20.

19. Theobald H. Combining welfare mix and new public management: the case of long-term care insurance in Germany. Int J Soc Welfare. 2012;21:61–74.

20. Rothgang H, Müller R, Runte R, Unger R. Pflegereport 2017 [Nursing report 2017]. Berlin and Wuppertal: Barmer; 2017 (Schriften zur Gesundheitsanalyse, Band 5).

21. Leichsenring K, Rodrigues R, Winkelmann J, Falk R. Integrated care, choice and competition. Challenges and strategies of care coordination in the context of market-oriented governance in Germany and Sweden. Vienna: European Centre; 2015 (https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwiegsDZ_NPlAhXpAGMBHcwUDGwQFjAAegQIAhAC&url=https%3A%2F%2Fwww.euro.centre.org%2Fdownloads%2Fdetail%2F1537&usg=AOvVaw3DfRCqENp9BYRlusOO4Pkv, accessed 2 December 2019).

22. de Savigny D, Taghreed A, editors. Systems thinking for health systems strengthening. Geneva: Alliance for Health Policy and Systems Research, World Health Organization; 2009 (https://www.who.int/alliance-hpsr/resources/9789241563895/en, accessed 2 December 2019).

23. Health services delivery: a concept note. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0020/291611/Health-Services-Delivery-A-concept-note-301015.pdf?ua=1, accessed 2 December 2019).

24. The Minsk Declaration. The Life-course Approach in the Context of Health 2020. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0009/289962/The-Minsk-Declaration-EN-rev1.pdf?ua=1, accessed 2 December 2019).

25. Frequently asked questions on a human rights-based approach to development cooperation. New York: Office of the United Nations High Commissioner for Human Rights; 2006 (https://www.ohchr.org/Documents/Publications/FAQen.pdf, accessed 2 December 2019).

26. Integrating gender perspectives in the work of WHO: WHO gender policy. Geneva: World Health Organization; 2002 (https://apps.who.int/iris/handle/10665/67649, accessed 2 December 2019).

27. WHO Regional Office for Europe. (2019). Country assessment framework for the integrated delivery of long-term care. Copenhagen: WHO Regional Office for Europe. (http://www.euro.who.int/__data/assets/pdf_file/0011/419357/Country-assessment-framework-integrated-delivery-care.pdf?ua=1, accessed 5 December 2019).

28. OECD statistics [online database]. Paris: Organisation for Economic and Co-operation and Development; 2019 (https://stats.oecd.org, accessed 2 December 2019).

29. DESTATIS [website]. Berlin: Federal Statistical Office; 2019 (https://www.destatis.de/DE/Startseite.html, accessed 2 December 2019).

30. Pflegestatistik 2015. Pflege im Rahmen der Pflegeversicherung. Deutschlandergebnisse [Nursing statistics 2015. Nursing care. Germany results]. Wiesbaden: Statistisches Bundesamt; 2017.

31. Busse R, Blümel M. Germany: health system review. Health Syst Transition. 2014;16:1–296 (http://www.euro.who.int/en/about-us/partners/observatory/publications/health-system-reviews-hits/full-list-of-country-hits/germany-hit-2014, accessed 2 December 2019).

32. Profiles of ageing 2019. New York: United Nations Department of Economic and Social Affairs, Population Division, 2019 (https://population.un.org/ProfilesOfAgeing2019/index.html, accessed 2 December 2019).

33. European core health indicators. Brussels: European Commission; 2019 (https://ec.europa.eu/health/indicators_data/indicators_en, accessed 2 December 2019).

34. OECD, European Observatory on Health Systems and Policies. Germany: country health profile 2017, state of health in the EU. Paris: OECD Publishing; 2017 (https://www.oecd-ilibrary.org/social-issues-migration-health/germany-country-health-profile-2019_36e21650-en, accessed 2 December 2019).

35. 2013: the prevalence of dementia in Europe. Brussels: Alzheimer Europe; 2013 (https://www.alzheimer-europe.org/Policy-in-Practice2/Country-comparisons/2013-The-prevalence-of-dementia-in-Europe, accessed 2 December 2019).

36. Health at a glance: Europe 2018: state of health in the EU cycle. Paris: OECD Publishing; 2018 (https://doi.org/10.1787/health_glance_eur-2018-en, accessed 2 December 2019).

37. Informal care in Europe: exploring formalisation, availability and quality. Brussels: European Commission; 2018 (https://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=8106&type=2&furtherPubs=no, accessed 2 December 2019).

38. Schaeffer D, Hurrelmann K, Bauer U, Kolpatzik K, editors. National Action Plan Health Literacy. Promoting health literacy in Germany. Berlin: KomPart; 2018 (https://www.uni-bielefeld.de/gesundhw/ag6/downloads/nat_aktionsplan_gesundheitskompetenz_en.pdf, accessed 2 December 2019).

39. Zahlen und Fakten zur Pflegeversicherung [Facts and figures about care insurance]. Berlin: Federal Ministry of Health; 2017 (https://www.bundesgesundheitsministerium.de/fileadmin/Dateien/3_Downloads/Statistiken/Pflegeversicherung/Zahlen_und_Fakten/Zahlen_und_Fakten.pdf, accessed 2 December 2019).

40. Pflegestärkungsgesetz [Care Support Act]. Berlin: Federal Ministry of Health; 2017 (http://www.pflegestaerkungsgesetz.de/finanzielle-leistungen/alle-leistungen-ab-2017-im-ueberblick, accessed 2 December 2019).

41. Bedarfsgerechte Versorgung – Perspektiven für ländliche Regionen und ausgewählte Leistungsbereiche [Needs-based care – perspectives for rural regions and selected service areas]. Baden-Baden: Sachverständigenrat zur Begutachtung (SVR) der Entwicklung im Gesundheitswesen; 2014.

42. Ambulatory care-sensitive conditions: Germany. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0004/295573/ASCS-Germany-2015-rev1.pdf?ua=1, accessed 2 December 2019).

43. Turner S, Kisser R, Rogmans W. Falls among adults in the EU-28: key facts from the available statistics. Brussels: European Association for Injury Prevention and Safety Promotion; 2015 (https://eupha.org/repository/sections/ipsp/Factsheet_falls_in_older_adults_in_EU.pdf, accessed 2 December 2019).

44. Tomova-Simitchieva T, Akdeniz M, Blume-Peytavi U, Lahmann N, Kottner J. The epidemiology of pressure ulcer in Germany: systematic review. Gesundheitswesen. 2019;81:505–12.

45. Gerlinger T. ESPN thematic report on challenges in long-term care. Germany. Brussels: European Commission; 2018 (https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwj1-OjghtTlAhVCZhQKHb-5Ai8QFjAAegQIBBAC&url=https%3A%2F%2Fec.europa.u%2Fsocial%2FBlobServlet%3FdocId%3D19848%26langId%3Den&usg=AOvVaw0w0AE7PpiOVUflvC_Nv87D, accessed 2 December 2019).

46. Gesetz zum weiteren quantitativen und qualitativen Ausbau der Kindertagesbetreuung. Berlin: Bundesministerium für Familie, Senioren, Frauen und Jugend; 2018 (https://www.bmfsfj.de/bmfsfj/service/gesetze/gesetz-zum-weiteren-quantitativen-und-qualitativen-ausbau-der-kindertagesbetreuung/78226, accessed 2 December 2019).

47. Bäcker G. Reform of the long-term care insurance in Germany. Brussels: European Commission; 2016 (ESPN Flash Report no. 43; https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwi2-PTigtTlAhVBDGMBHQLYBvgQFjAAegQIBBAC&url=https%3A%2F%2Fec.europa.eu%2Fsocial%2FBlobServlet%3FdocId%3D16074%26langId%3Den&usg=AOvVaw2QYk6cY4S9-MU_IEl9FUi5, accessed 2 December 2019).

48. Pflegebedürftigkeitsbegriff [Care concept]. Berlin: GKV; 2018 (https://www.gkv-spitzenverband.de/pflegeversicherung/pv_grundprinzipien/pflegebeduerftigkeitsbegriff/s_pflegebeduerftigkeitsbegriff.jsp, accessed 2 December 2019).

49. Pflegebedürftigkeit [Care]. Berlin: Federal Ministry of Health; 2018 (https://www.bundesgesundheitsministerium.de/themen/pflege/online-ratgeber-pflege/pflegebeduerftigkeit.html, accessed 2 December 2019).

50. Hoffer H, Schölkopf M. 20 Jahre Gesetzliche Pflegeversicherung [20 years of statutory long-term care insurance]. Vierteljahreshefte zur Wirtschaftsforschung. 2014;83:21–41.

51. Expertenstandard Entlassungsmanagement in der Pflege [Expert standard dismissal management in nursing]. Osnabrück: Deutsches Netzwerk für Qualitätsentwicklung in der Pflege; 2009.

52. Sechster Bericht der Bundesregierung über die Entwicklung der Pflegeversicherung und den Stand der pflegerischen Versorgung in der Bundesrepublik Deutschland [Sixth report by the Federal Government on the development of long-term care insurance and the status of nursing care in the Federal Republic of Germany]. Berlin: Federal Ministry of Health; 2016 (https://www.bundesgesundheitsministerium.de/fileadmin/Dateien/5_Publikationen/Pflege/Berichte/6.Pflegebericht.pdf, accessed 2 December 2019).

53. Verband der Privaten Krankenversicherung. Rundum gut beraten [Association of Private Health Insurance: all-round good advice]. Berlin: PKV; 2016 (https://www.pkv.de/service/pkv_publik/archiv/2016/pkv-publik-nr-05-2016/rundum-gut-beraten, accessed 2 December 2019).

54. Löher M. Gestaltung der Pflegeinfrastruktur. Kommunen wollen mehr Verantwortung [Design of the care infrastructure. Municipalities want more responsibility, a nurturing world]. Pflegewelt, 2016;2:16–7.

55. Gematik Gesellschaft for telematics applications of the health card mbH. Berlin: Gematik; 2019 (https://www.gematik.de/ueber-uns, accessed 2 December 2019).

56. Qualität und Transparenz in der Pflege [Quality and transparency in nursing]. Berlin: Federal Ministry of Health; 2017 (https://www.bundesgesundheitsministerium.de/themen/pflege/online-ratgeber-pflege/qualitaet-und-transparenz-in-der-pflege.html, accessed 2 December 2019).

57. Hasseler M, Wolf-Ostermann K, Nagel M. Wissenschaftliche Evaluation zur Beurteilung der Pflege-Transparenzvereinbarungen für den ambulanten (PTVA) und stationären (PTVS) Bereich [Scientific evaluation to evaluate the nursing transparency agreements for the outpatient (PTVA) and inpatient (PTVS) area]. Hamburg and Berlin: HAW Hamburg und ASH Berlin; 2010.

58. Weiß C, Sünderkamp S, Rothgang H. Strukturelle Einflüsse auf Pflegenoten: Eine Analyse nach Anbietergröße, Trägerschaft und regionale Lage [Structural influences on care personnel: aanalysis according to provider size, sponsorship and regional situation]. Vierteljahreshefte zur Wirtschaftsforschung. 2014; 83:87–105.

59. Elftes Buch, Soziale Pflegeversicherung [Eleventh book, social care insurance]. Berlin: Sozialgesetzbuch (Sozialgesetzbuch XI); 2017 (http://www.sozialgesetzbuch-sgb.de/sgbxi/41.html, accessed 2 December 2019).

60. Risikostrukturausgleich (RSA) [Risk adjustment]. Berlin: Federal Ministry of Health; 2017 (https://www.bundesgesundheitsministerium.de/themen/krankenversicherung/finanzierung/risikostrukturausgleich-rsa.html, accessed 2 December 2019).

61. The 2018 ageing report: economic and budgetary projections for the 28 EU Member States (2016–2070). Brussels: European Commission; 2016 (https://ec.europa.eu/info/sites/info/files/economy-finance/ip079_en.pdf, accessed 2 December 2019).

62. Kämmer K. Die neue Pflegedokumentation. Das Management-Handbuch für den optimalen Umstieg [The new nursing documentation. The management manual for optimal change]. Hannover: Schlütersche Verlagsgesellschaft; 2017.

63. Integrated care for older people (ICOPE) implementation framework: guidance for systems and services. Geneva: World Health Organization; 2019 (https://apps.who.int/iris/handle/10665/325669, accessed 2 December 2019).

64. Guidance on person-centred assessment and pathways in primary care. Geneva: World Health Organization; 2019 (https://www.who.int/ageing/publications/icope-handbook/en, accessed 2 December 2019).

The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

Member States

Albania
Andorra
Armenia
Austria
Azerbaijan
Belarus
Belgium
Bosnia and Herzegovina
Bulgaria
Croatia
Cyprus
Czechia
Denmark
Estonia
Finland
France
Georgia
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Luxembourg
Malta
Monaco
Montenegro
Netherlands
North Macedonia
Norway
Poland
Portugal
Republic of Moldova
Romania
Russian Federation
San Marino
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Tajikistan
Turkey
Turkmenistan
Ukraine
United Kingdom
Uzbekistan

World Health Organization
Regional Office for Europe
UN City, Marmorvej 51, DK-2100 Copenhagen Ø, Denmark
Tel.: +45 45 33 70 00 Fax: +45 45 33 70 01
E-mail: contact@euro.who.int
Website: www.euro.who.int