Innovating care for people with multiple chronic conditions in Europe

Caring for people with multiple chronic conditions in Germany: policy and practices

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Key points

- Patients with multimorbidity, especially among the elderly, pose particular challenges for the German health care system.
- New policies were formulated and introduced to adapt the care system and care practices to the challenge of meeting the needs of chronically ill citizens, and people with multimorbidity, in particular on a modest scale.
- The care programmes focus on improved quality of care, reduced utilisation and costs, improved patient outcomes and improved patient centeredness.
- Overall, outcomes of the care programmes addressing multimorbidity seem to be positive, but long-term evaluations are needed.

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1. Multimorbidity: a challenge for care delivery

Until recently, multimorbidity — the occurrence of more than one chronic disease within an individual — has not received much attention from European policy-makers. However, this seems to be changing, now that it has become clear that the number of people with multimorbidity is rapidly increasing. Currently, an estimated 50 million (mostly older) people in the European Union live with multiple chronic diseases[1], which deeply impacts their quality of life in many ways (physically, but also mentally and socially). This implies an increasing demand for multidisciplinary care that is tailored to the specific health and social needs of people with multimorbidity.

Yet interdisciplinary collaboration across sectors (e.g. primary care, hospital care, social care, home care, community services) is often hindered by differences in organisational and financing arrangements between sectors. Moreover, most care delivery models are based on a single disease approach, which could bring about fragmentation, gaps or overlap in care delivery for people with multimorbidity with negative consequences for the quality of care, patient outcomes, efficiency and costs.

Integrated care models have the potential to overcome these problems by taking a holistic approach while making efficient use of resources. Such models are characterised by proactive patient-centred and well-coordinated multidisciplinary care, using new technologies to support patients' self-management and improving collaboration between caregivers. The **ICARE4EU** project (see Box 1) explores new models and care practices aimed at delivering integrated care for people with multimorbidity in 30 European countries. This factsheet describes how policy and practices are developing in Germany.

2. The challenge of multimorbidity in Germany

In 2011, among a total population of 81.8 million inhabitants, more than 20.6% of people were aged 65 years and older, and 5.3% were 80 years and older[2]. The German population is relatively old, when compared with the total EU-27 population in 2011, where these percentages were respectively 17.6% and 4.8%.

Among the German population* an estimated 36.8% reported to have at least one long-standing illness or health problem[3]. Figure 1 shows the estimated prevalence rates of five major chronic diseases in Germany. Based on the occurrence of 14 self-reported chronic conditions, it has been estimated that approximately 42% of the German population aged 50 years and older suffer from multimorbidity, i.e. have been diagnosed with at least two of these 14 conditions[4]. Thus patients with multimorbidity, especially among the elderly, pose particular challenges for the German health care system.

* This is a rectification of the previously published country factsheet that incorrectly referred to the population aged 16 to 64.

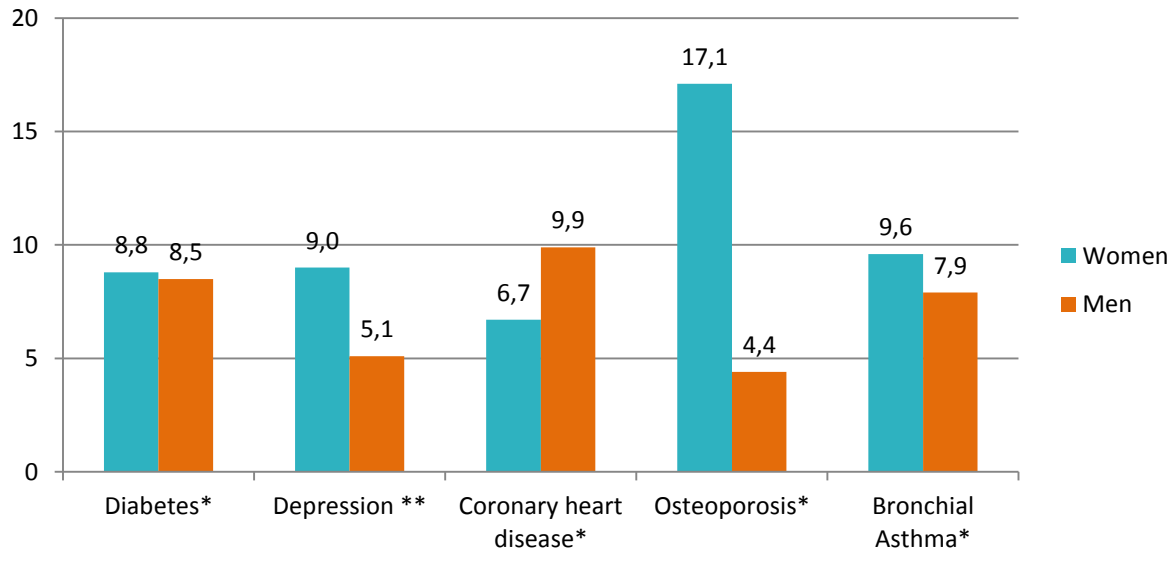
Box 1 The ICARE4EU project

The ICARE4EU project aims to identify, describe, and analyse innovative, integrated care models for people with multimorbidity in 30 European countries, and to contribute to more effective implementation of such models.

For this purpose, country experts have been contracted (one for each country) to identify programmes at a national, regional or local level in their country that focus on providing care for adult (or older) people with multimorbidity, or contain specific elements for this target group. Multimorbidity is defined for this project as *the presence of two or more medically (somatic or psychiatric) diagnosed chronic (not fully curable) or long lasting (at least six months) diseases, of which at least one is of a primarily somatic nature*. Programmes should involve a formalised cooperation between two or more services, of which at least one medical service, and they should be evaluated — or have an evaluation planned — in some way. For each eligible programme, the country expert or the programme manager completed an online questionnaire. In addition, country-level data were provided by the country experts and partly collected by the project team from European databases.

Based on all data available, good practices will be identified and studied in the second half of 2014. For this purpose, additional qualitative data from different perspectives (e.g. management, care providers, patients) will be gathered by site visits. Analysis of the good practices will result in knowledge about the characteristics and conditions for successful implementation of multimorbidity care practices in various European countries. For more information: www.icare4eu.org.

Figure 1: Prevalence of some major chronic diseases in Germany in 2010 (percentages), estimations of the total population reporting (or diagnosed with) these diseases[5]



*Lifetime Prevalence **12-Month Prevalence

In 2011, Germany spent 11.3% of its Gross Domestic Product (GDP) on health care, which is an increase of almost 10% in comparison with 1998 (10.3%).[6] Total health expenditure as a share of GDP recorded the highest increase between the years 2008 and 2009 (from 10.7% to 11.7%). This substantial increase can be explained by a simultaneous increase of health care expenditure and a decrease of GDP. Across the total EU, the expenditures on health care raised from 7.9% to 9.6% GDP over the period 1998 - 2011 (+21.5%)[7]. So health care expenditures in Germany rose to a lesser extent during this period, but were in 1998, and still are in 2011, relatively higher than the EU total. See Appendix 1 for some general characteristics of the health care system in Germany.

3. The German response to the challenge of multimorbidity

In order to respond to the increasing number of chronically ill citizens, and people with multimorbidity in particular, Germany has formulated new policies and introduced measures to adapt the care system and care practices to the challenge of meeting the comprehensive needs of these people on a rather modest scale.

Policy on multimorbidity care

Germany outlined its national policy on chronic illness care in 2001 in the Act to Reform the Risk Structure Compensation Scheme in Statutory Health Insurance (SHI)[8]. The policy was initiated jointly by the government, universities, research institutions and the Advisory Council for the Assessment of Developments in Health Care. As part of the reform, disease management programmes (DMP's) were introduced, which provided new incentives for intersectoral care for the chronically ill starting in 2002.

Provisions for integrated care models were first introduced with the Reform Act of SHI in 2000[9], laying the foundations for the national level introduction of care models aiming at cross-sectoral coordination. The SHI Modernisation Act in 2004[10] further removed barriers to start integrated care delivery, which still persisted after the introduction of the first integrated care models in 2000. Finally, in 2011, the SHI Care Structures Act introduced a financial support system for integrated care physician networks if they have achieved certain quality standards. The policies on integrated care had been initiated by the government. Representatives of formally accredited patient organisations are involved in the development of the above mentioned policies. They have the right to participate in consultations and to propose issues to be assessed and decided upon. However, they do not have the right to vote in legislative decisions.

Policies, new regulations and financial incentives for integrated care have resulted in an increase of integrated care contracts, as well as attracted substantial interest among hospitals, which had been hesitant until then.[11]

Care practices addressing multimorbidity

Based on expert information and snowballing, 16 care practices or programmes[b] addressing multimorbidity patients or focusing on multimorbidity management were identified in the first half of 2014 in Germany[c]. From ten of these programmes we obtained information about their objectives, characteristics and results so far (see Box 2)[d]. Presented below are some results of the survey, as reported by either the country expert or the programme managers.

The programmes

The majority of the programmes [1-4,6,10] described in Box 2 can be characterised as comprehensive programmes operating on regional level or local level. Four programmes [5,7-9] are small scale pilot projects operating on a regional or local level. An exception is the CORDIVA programme, as this is the only programme operating at a national level as part of an international programme.

Consistency was described regarding the operational level, as all ten programmes are designed to operate at the level of daily patient care. In addition four of the programmes [6,8-10] operate on both: the level of daily patient care and at the policy/managerial level. The overall number of people participating in the care programmes differs widely.

Multimorbidity orientation

Most programmes [2,5,6,8,10] focus on multimorbidity in general, whereas three programmes [3,4,7] focus on a specific diagnosis with a variety of possible comorbidities, for instance heart failure or asthma. In the other two programmes [1,9] a combination of specific diagnoses, such as depression, diabetes, asthma, hypertension, COPD, osteoporosis, cardio vascular diseases, is the focus. The definitions used for multimorbidity vary concerning the scope of the programmes, but in most programmes a patient is defined as multimorbid, if two or more chronic diseases are diagnosed. Some added to their definition that these diseases must present certain limitations in the daily life of patients, most of whom are elderly.

[b] This term refers to care programmes, projects and interventions that have been developed or adapted for use in (a certain region or municipality of) this country, and are actually running in 2014 (e.g. as a pilot/project or already more structurally implemented), start in 2014 or had been finished in 2013.
[c] We do not assume that all available (eligible) care practices or programmes in Germany were identified.
[d] A total of 16 programmes were identified, but not all of them explicitly address multimorbidity. Programmes that do not explicitly address multimorbidity are not described here.

Objectives

The four main objectives of the majority of programmes are (1) improved quality of care, (2) reduced utilisation and costs, (3) improved patient outcomes and (4) improved patient centeredness, with the exception of the Invade programme in which only aspects of quality of care and patient outcomes are goals. Interestingly none of the ten programmes focussed on improving access to care. All programmes seemed to have a particular focus on improved quality of care, usually addressing several different aspects of quality.

Target groups

Most programmes have in common that they address patients and medical care providers. An exception is the Promobil AGKB because this programme does not directly address medical care providers. In the CORDIVA programme patients are not specifically targeted, but informal carers, medical care providers and non-medical care providers are.

Half of all programmes [2,5,6,8,10] directly target patients with multimorbidity and do not address any specific subgroup within their patient population. Three programmes [3,4,7] explicitly address people with a specific diagnosis, such as chronic wounds, heart failure or asthma. The remaining two programmes [1,9] focus on people with a combination of specific diagnoses.

Overall, two programmes [5,9] primarily target frail elderly people and two programmes [1,3] explicitly focus on older people, whereas the Invade programme is oriented to low income groups. The CORDIVA programme is exempt because it is the only one in which certain health problems, for instance diseases that severely affect life expectancy or advanced disabilities, are described as reasons to exclude patients from their programme.

Level of integration of care sectors and disciplines

In all programmes, more than two different services are involved. Organisations found to be involved in every programme are hospitals and primary care practices, with the exception of one programme where no hospital is involved [9]. Another similarity identified is that in each programme a general practitioner is involved, but the number and disciplines of medical specialists participating varies greatly. In the Invade programme for instance, only one type of medical specialist is involved, while in other programmes twelve different medical specialists are involved [2] or various professions such as social workers, physiotherapists, dieticians [6].

Experiences and results

Three of the ten programmes described in Box 2 have not been extensively evaluated yet, but for each of them evaluations are planned [5,7,9]. Several indicators are however already monitored in these programmes, so that quality information will be available for evaluation purposes. The programmes which have already been evaluated have either been evaluated internally [1,3,8] or both internally and externally [2,4,6]. The Solimed programme has only been evaluated externally.

Overall, for the majority of the programmes indicators on structural, process and outcome level have been monitored [1,-4,6,10]. In two programmes only structure and outcome indicators are monitored [7,9], and for the Health network WOGE structural and process indicators are monitored.

So far, the programme managers have viewed the programmes mostly positively. They have the impression that the objectives set in the programmes have been/are reached or at least to a great extent. For instance, for the Invade programme it was reported that one of its aims, 'the reduction of need for care', could be achieved. For the CORDIVA programme, based on elementary control, results suggest that the programme may continuously reduce (all causes) hospitalisation by up to 40%, almost halve mortality and decrease total health care costs by up to 20%.

All evaluated programmes have in common that they seem to result in increased patient satisfaction [1-7,10], with the exception of one programme [8]. Another similarity identified among the judgements of programme managers is that almost all reported an improved cost-effectiveness for their programmes, except for two programmes [7,10]. The Gesundes Kinzigtal Programme achieved a reduction of health expenditures with improved structured patient care and with improved cooperation between all care providers.

For all programmes, a longer period of observation and evaluation is needed to get more stable statistical data and information about trends over time.

Box 2 Characteristics of programmes addressing multimorbidity in Germany and results

ID NR	Programme	Main objectives	Target group	Care providers / organisations	Results
1	INVADE Intervention project for cerebrovascular diseases and dementia in the district Ebersberg in the federal state of Bavaria	Quality of care Promoting evidence-based practice, improving professional knowledge on multi-morbidity, increasing multi-disciplinary collaboration Patient outcomes Improving early detection of additional/comorbid diseases	Patients and medical care providers. The programme specifically addresses people from low income groups and people older than 50 years with vascular diseases and other comorbidities.	University hospital, general hospital, primary care practices, insurer. General practitioners and neurologist.	The programme seems to result in better outcomes for patients, satisfaction of patients, improved cooperation between care providers and improved cost effectiveness. The main objectives were said to be completely reached.
2	Gesundheitsnetz Qualität und Effizienz eG Nürnberg Health network quality and efficiency eG in Nürnberg, the federal state of Bavaria	Quality of care Improving integration of different organisations, increasing multi-disciplinary collaboration Patient outcomes Improving early detection of additional/comorbid diseases Utilisation & Cost Preventing or reducing over-use of services Improving patient centeredness Identification of target group patients, improving patient involvement	Patients with multi morbidity in general, medical care providers, non-medical care providers and management.	General hospital, primary care practice, nursing home, policlinic, patient organisation, social care organisation, physiotherapy, self-help and general practitioners and several medical specialists, namely: cardiologists, surgeons, internists, E.N.T. specialists, pulmonologists, neurologists, ophthalmologists, gynaecologists, urologists, radiologists, paediatricians, haematologist-oncologists.	The programme suggests improved coordination of care, improved cooperation between medical and non-medical care, staff and patient satisfaction, better patient involvement, changes in utilisation of resources, cost savings and it is transferable. The objectives set in the programme were said to be completely reached.
3	Modell Herdecke Integrated care for people with chronic wounds in Herdecke the federal state of North Rhine Westphalia	Quality of care Improving care coordination, the integration of different organisations, increasing multi-disciplinary collaboration Patient outcomes Improving early detection of additional/comorbid	Patients, medical care providers, non-medical care providers. The programme specifically addresses (often elderly) people with chronic wounds.	General hospital, primary care practice, nursing home, community/home care organisation, insurers, wound ambulance. General practitioners together with different medical specialists: surgeon, internist,	The programme seems to improve coordination of care, cooperation between medical and non-medical care, staff, improved satisfaction of patients and informal carers, better outcomes for patients, cost savings and it is said to be transferable. The

		diseases, improving functional status, decreasing/delaying complications <u>Utilisation & Cost</u> Reducing hospital admissions <u>Improving patient centeredness</u> Improving patient involvement		dermatologist.	programme is especially effective with respect to the medical parameters. The objectives set were reported to be almost completely reached.
4	CORDIVA project in Munich, the federal state of Bavaria	<u>Quality of care</u> Improving integration of different organisations, improving multi-disciplinary collaboration <u>Patient outcomes</u> Early detection of additional/comorbid diseases, decreasing complications, morbidity and mortality <u>Utilisation & Cost</u> Hospital admissions, emergency care visits and costs. <u>Improving patient centeredness</u> Patient and informal carers involvement	Informal carers, medical care providers, non-medical care providers. The programme specifically addresses people with heart failure and comorbidities, namely coronary artery disease, hypertension, diabetes, hyperlipidaemia, obesity, renal failure and COPD.	University hospital, general hospital, primary care practice, health centre, policlinic, community/home care organisation, insurer. The programme involves different care providers: general practitioners, cardiologists, internists, pulmonologists, nephrologists, and each specialist whose participation is desired by patients.	The programme shows better patient involvement, satisfaction of patients, changes in utilisation of resources, cost savings and is transferable. The objectives set in the programme were said to be completely reached.
5	Promobil AGKB in Waren an der Müritz in the federal state of Mecklenburg Pomerania	<u>Quality of care</u> Increasing multi-disciplinary collaboration, patient safety <u>Patient outcomes</u> Early detection of additional/comorbid disease, functional status, decreasing complications, morbidity <u>Utilisation & Cost</u> Preventing or reducing over-use of services, hospital admissions, emergency care visits, costs	Patients with multimorbidity in general and in the ages 65 to 85 years.	General hospital, primary care practice, health centres. The care providers involved are general practitioners and neurologists.	Not evaluated yet, but an external evaluation is planned for July 2014. The programme shows improved coordination of care, cooperation between medical and non-medical care, better outcomes for patients, better patient involvement, satisfaction of staff, patients and informal carers, changes in utilisation of resources, cost savings and it is said

		Improving patient centeredness Improving involvement of informal carers			to be transferable. The objectives of the programme were said to be almost completely reached.
6	Gesundes Kinzigtal in Haslach in the federal state of Baden Württemberg	Quality of care Promoting evidence-based medicine, improving professional knowledge on multimorbidity, improving integration of different organisations, increasing multi-disciplinary collaboration, improving patient safety Patient outcomes Improving early detection of additional/comorbid diseases, decreasing complications, morbidity, mortality Utilisation & Cost Reducing hospital admissions, (public) costs Improving patient centeredness Identification of target group patients, patient involvement	The programme refers to patients with multimorbidity in general, medical care providers, non-medical care providers.	General hospital, primary care practice, nursing home, policlinic, patient organisation, social care organisation, pharmacy, insurer and management company. The programme involves several care providers as general practitioners, cardiologists, internists, E.N.T specialists, neurologists, orthopaedists, rheumatologists, anaesthesiologists, dermatologists, social workers, physiotherapists, dieticians and psychologists.	The programme shows improved coordination of care, cooperation between medical and non-medical care, staff and patient satisfaction, better outcomes for patients, better patient involvement, changes in utilisation of resources, cost savings and is transferable. The programme improved integration of services, the collaboration of care providers and the cost effectiveness. The objectives of the programme were said to be almost completely reached.
7	UGOM Network centred supervision physician system located in Amberg in the federal state of Bavaria.	Quality of care Promoting evidence-based practice, improving professional knowledge on multimorbidity, increasing multi-disciplinary collaboration Patient outcomes improving early detection of	Patients, informal carers, medical care providers, management, physician assistants of the participating practices and pharmacies	General hospital, primary care practice, medical specialists of the network and network management. Providers involved are general practitioners, cardiologists, internists, E.N.T. specialists, pulmonologists,	Not evaluated yet, but an external evaluation is planned for July 2014. The programme so far seems to result in improved coordination of care, staff and patient satisfaction, better patient involvement, is transferrable and it improves the collaboration between

		additional/comorbid disease, decreasing complications, mortality <u>Utilisation & Cost</u> Hospital admissions, emergency care visits, public costs <u>Improving patient centeredness</u> Identification of target group patients, patient involvement		neurologists, orthopaedists, and dermatologists.	care providers, patient centeredness and patient involvement. The objectives of the programme were said to be almost completely reached.
8	Health network WOGE located in the city Worms in the federal state of Rhineland Palatinate	<u>Quality of care</u> Improving integration of different organisations, increasing multi-disciplinary collaboration <u>Patient outcomes</u> Decreasing morbidity and mortality <u>Utilisation & Cost</u> Reducing hospital admissions, emergency/acute care visits <u>Improving patient centeredness</u> Identification of target group patients	Patients and medical care providers. Patients with multi morbidity in general.	General hospital and primary care practice. General practitioners, cardiologists, internists, pulmonologists, ophthalmologists.	The programme shows improved coordination and is transferrable. The collaboration between providers and the competencies of the care providers have been improved, but financing of the programme is still a problem. Some of the objectives set in the programme were said to be reached, others are still in progress.
9	Physician network in the city Nürnberg Süd in the federal state of Bavaria	<u>Quality of care</u> Promoting evidence-based practice, improving professional knowledge on multi-morbidity, improving multi-disciplinary collaboration, improving patient safety <u>Patient outcomes</u> Decreasing complication, mortality <u>Utilisation & Cost</u> Reducing hospital admissions,	Patients and medical care providers. Patients with a combination of specific diagnoses, namely: cardiac insufficiency, diabetes, depression, hypertension, coronary heart disease, asthma, COPD, osteoporosis and patients older than 65 years with cognitive	Primary care practice, research institute government. The care providers involved are general practitioner, cardiologist, surgeon, internist, E.N.T. specialist, pulmonologist, neurologist, ophthalmologist, orthopaedist, rheumatologist.	Not evaluated yet, but an internal evaluation is planned for March 2015.

		emergency/acute care visits, public costs <u>Improving patient centeredness</u> Identification of target groups	impairments.		
10	Solimed in Solingen a city in the federal state of North Rhine-Westphalia	<u>Quality of care</u> Improving integration of different organisations, increasing multi-disciplinary collaboration <u>Patient outcomes</u> Decreasing complications, mortality, morbidity <u>Utilisation & Cost</u> Reducing hospital admissions, emergency/acute care visits	Patients and medical care providers. Patients with multi morbidity in general.	General hospital, primary care practice, insurer. General practitioners, cardiologists, internists, E.N.T specialists, ophthalmologists, orthopaedists, gynaecologists, urologists and psychiatrists.	The economic success has not been reached yet, but the quality objectives have been successfully achieved. Moreover it seems to result in improved coordination and patient satisfaction. The objectives of the programme are said to be almost completely reached.

Appendix 1 Some characteristics of the health care system in Germany

Health care

In Germany, the 16 states set the objectives for public health and the services are provided by roughly 350 public health offices across Germany, which vary widely in size, structure and tasks. The states are also setting the total budget for the public health funds which are allocated to the public health offices[12].

Based on characteristics of its structure and delivery of care services, the strength of the primary care sector in Germany was labelled as of medium strength in a European comparative health systems study[13].

As in most other European countries, the population of Germany has (almost) universal insurance coverage. However, the system is split into statutory and private health insurance. It provides coverage for a wide range of benefits. Independent of the status, the amount of contribution paid or the duration of insurance, members and their dependants are entitled to the same benefits within social health insurance.

As in most European countries, patient cost sharing is applied to limit public expenditures. In 2011, 76.5% of total health expenditures was paid from public sources, leaving 23.6% to be paid privately by patients or from external sources. Cost sharing is generally applied for primary care visits, specialist visits, inpatient care and outpatient prescription drugs[14].

Social care, long-term care and home care for the elderly

Social care is delivered by a broad variety of mainly private organisations that complement family and lay support for the elderly, beside other areas of responsibility. The states are responsible for planning (and guaranteeing the provision of) institutionalised care and schools for children with special needs.[15]

In Germany the elderly constitute the largest group of health care clients. In 2010, Germany spent 1.4% of its GDP on long-term care, compared to 1.8% GDP across the total EU-27[16]. Long-term care is dominated by the statutory long-term care insurance since it was introduced in 1994, as Book XI of the Social Code Book. It represents a separate pillar of the care system. The statutory long-term care insurance is a special insurance and typically consists of the mandatory social long-term care and the mandatory private long-term care insurance. Starting in 1995, all members of statutory sickness funds (including pensioners and the unemployed) as well as all people with full-coverage private health insurance were declared mandatory members. Altogether, 2.5 million (3.1% of the population) were entitled to benefits from social long-term care insurance in 2011[17].

The home care sector in Germany is divided into home nursing and home care, which makes a difference regarding the insurance. The health care insurance is responsible for home nursing, whereas the long-term care insurance is in charge of home care[18]. In Germany a total of 1.76 million people received home care and approximately 0.74 million stayed in nursing homes[19].

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