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Reinhard Busse • Miriam Blümel

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Health Systems in Transition

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Preface

The Health Systems in Transition (HiT) series consists of country-based reviews that provide a detailed description of a health system and of reform and policy initiatives in progress or under development in a specific country. Each review is produced by country experts in collaboration with the Observatory's staff. In order to facilitate comparisons between countries, reviews are based on a template, which is revised periodically. The template provides detailed guidelines and specific questions, definitions and examples needed to compile a report.

HiTs seek to provide relevant information to support policy-makers and analysts in the development of health systems in Europe. They are building blocks that can be used:

- to learn in detail about different approaches to the organization, financing and delivery of health services and the role of the main actors in health systems;
- to describe the institutional framework, the process, content and implementation of health-care reform programmes;
- to highlight challenges and areas that require more in-depth analysis;
- to provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between policy-makers and analysts in different countries; and
- to assist other researchers in more in-depth comparative health policy analysis.

Compiling the reviews poses a number of methodological problems. In many countries, there is relatively little information available on the health system and the impact of reforms. Due to the lack of a uniform data source, quantitative data on health services are based on a number of different sources, including

the World Health Organization (WHO) Regional Office for Europe's European Health for All database, data from national statistical offices, Eurostat, the Organisation for Economic Co-operation and Development (OECD) Health Data, data from the International Monetary Fund (IMF), the World Bank's World Development Indicators and any other relevant sources considered useful by the authors. Data collection methods and definitions sometimes vary, but typically are consistent within each separate review.

A standardized review has certain disadvantages because the financing and delivery of health care differ across countries. However, it also offers advantages, because it raises similar issues and questions. HiTs can be used to inform policy-makers about experiences in other countries that may be relevant to their own national situation. They can also be used to inform comparative analysis of health systems. This series is an ongoing initiative and material is updated at regular intervals.

Comments and suggestions for the further development and improvement of the HiT series are most welcome and can be sent to info@obs.euro.who.int.

HiTs and HiT summaries are available on the Observatory's web site http://www.healthobservatory.eu.

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The HiT on Germany was co-produced by the European Observatory on Health Systems and Policies and the Berlin University of Technology, which is a member of the Health Systems and Policy Monitor (HSPM) network.

The HSPM is an international network that works with the Observatory on Country Monitoring. It is made up of national counterparts that are highly regarded at national and international level and have particular strengths in the area of health systems, health services, public health and health management research. They draw on their own extensive networks in the health field and their track record of successful collaboration with the Observatory to develop and update the HiT.

This edition was written by Reinhard Busse (European Observatory on Health Systems and Policies and Department of Health Care Management at the Berlin University of Technology) and Miriam Blümel (Department of Health Care Management at the Berlin University of Technology). The basis for this edition was the previous HiT on Germany published in 2004, and written by Reinhard Busse and Annette Riesberg, as well as the 2013 published profile *Das deutsche Gesundheitssystem. Akteure, Daten, Analysen* by Reinhard Busse, Miriam Blümel and Diana Ognyanova.

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Glossary of terms and institutions

English name	German name
12th Social Code Book V Amendment Act	*12. Sozialgesetzbuch-V-Änderungsgesetz*
1st Case Fees Amendment Act	*1. Fallpauschalen-Änderungsgesetz*
1st SHI Restructuring Act	*1. GKV-Neuordnungsgesetz*
2nd Case Fees Amendment Act	*2. Fallpauschalen-Änderungsgesetz*
2nd SHI Restructuring Act	*2. GKV-Neuordnungsgesetz*
Accident funds	*Unfallkassen*
Act to Adjust the Financing of Dentures	*Gesetz zur Anpassung der Finanzierung von Zahnersatz*
Act to Amend SHI Physicians' Law	*Gesetz zur Reform des Vertragsarztrechtes und anderer Gesetze*
Act to Equalize Statutory Provisions in SHI	*Gesetz zur Rechtsangleichung in der gesetzlichen Krankenversicherung*
Act to Improve Efficiency in Pharmaceutical Care	*Gesetz zur Verbesserung der Wirtschaftlichkeit in der Arzneimittelversorgung*
Act to Improve Organization Structures in SHI	*Gesetz zur Weiterentwicklung der Organisationsstrukturen in der GKV*
Act to Newly Regulate Choice of Sickness Funds	*Gesetz zur Neuregelung der Krankenkassenwahlrechte*
Act to Reform the Risk Structure Compensation Scheme in SHI	*Gesetz zur Reform des Risikostrukturausgleichs in der GKV*
Act to Strengthen Competition in SHI	*GKV-Wettbewerbstärkungsgesetz*
Administrative board (of sickness fund)	*Verwaltungsrat (Krankenkassen)*
Advisory Council for the Assessment of Developments in the Health Care System (previously Advisory Council for "Concerted Action in Health Care")	*Sachverständigenrat zur Begutachtung der Entwicklung im Gesundheitswesen (früher: für die Konzertierte Aktion im Gesundheitswesen)*
Alliance of Christian Nurses' Associations and Nursing Organizations in Germany	*Arbeitsgemeinschaft Deutscher Schwesternverbände*
Alliance of Scientific Medical Societies	*Arbeitsgemeinschaft Wissenschaftlich-Medizinischer Fachgesellschaften*
Association of Democratic Physicians	*Verein demokratischer Ärztinnen und Ärzte*
Association of German Psychologists	*Berufsverband Deutscher Psychologen*
Association of Independent Voluntary Welfare Organizations	*Deutscher Paritätischer Wohlfahrtsverband*
Association of Private Health Insurance Companies	*Verband der privaten Krankenversicherung*
Association of Protestant Welfare Organizations	*Diakonisches Werk*

Association of Research-based Pharmaceutical Companies	*Verband forschender Arzneimittel-Hersteller*
Basic Law (= constitution)	*Grundgesetz*
Case fee (since 2000 in a narrower sense: diagnosis-related group)	*Fallpauschale (seit 2000 im engeren Sinn: Diagnose-bezogene Fallpauschale)*
Case Fees Act	*Fallpauschalengesetz*
Case Fees Ordinance	*Fallpauschalenverordnung*
Catalogue of Medical Aids	*Hilfsmittelverzeichnis*
Catalogue of Tariffs for Physicians	*Gebührenordnung für Ärzte*
Central Institute for SHI Physician Care	*Zentral-Institut für die kassenärztliche Versorgung*
Central Reallocation Pool ("Health Fund")	*Gesundheitsfonds*
Central Welfare Organization of the Jews in Germany	*Zentralwohlfahrtsstelle der Juden in Deutschland*
Centre for Quality in Medicine	*Ärztliches Zentrum für Qualität in der Medizin*
Chamber of Dentists (regional)	*Zahnärztekammer*
Chamber of Pharmacists (regional)	*Apothekerkammer*
Chamber of Physicians (regional)	*Ärztekammer*
Chamber of Psychotherapists (regional)	*Psychotherapeutenkammer*
Child Bonus Act	*Kinder-Berücksichtigungsgesetz*
Committee for Hospital Care (the former)	*Ausschuss Krankenhaus (der frühere)*
Committee on Hospital Payment	*Ausschuss Krankenhaushausentgelt*
Company-based sickness fund	*Betriebskrankenkassen*
Conference of Health Ministers	*Gesundheitsministerkonferenz*
Contribution Rate Stabilization Act	*Beitragssatzsicherungsgesetz*
Convalescent Care Centre for Mothers	*Müttergenesungswerk*
Coordinating Committee (between Committee for Hospital Care and the Federal Committee of Physicians and Sickness Funds) (the former)	*Koordinierungsausschuss (der frühere)*
Corporations under public law	*Körperschaften des öffentlichen Rechts*
Diagnosis-related group (DRG)	*Diagnose-bezogene Fallpauschale*
Directive (issued by the Federal Joint Committee)	*Richtlinie (des Gemeinsamen Bundesausschusses)*
Düsseldorf Academy of Public Health	*Akademie für öffentliches Gesundheitswesen in Düsseldorf*
Extended Valuation Committee	*Erweiterter Bewertungsausschuss*
Farmers' sickness funds	*Landwirtschaftliche Krankenkassen*
Federal Alliance of Patient Centres and Initiatives	*Bundesarbeitsgemeinschaft PatientInnenstellen*
Federal Alliance for the Support of the Disabled	*Bundesarbeitsgemeinschaft Selbsthilfe von Menschen mit Behinderung und chronischer Erkrankung und ihren Angehörigen*
Federal Alliance of Voluntary Welfare Organizations	*Bundesarbeitsgemeinschaft der Freien Wohlfahrtspflege*
Federal Assembly (Lower Chamber of Parliament)	*Bundestag*
Federal Association of General Regional Sickness Funds	*AOK Bundesverband*
Federal Association for Medical Technology	*Bundesverband Medizintechnologie*
Federal Association of Pharmaceutical Manufacturers	*Bundesfachverband der Arzneimittel-Hersteller*
Federal Association of Pharmacists' Organizations	*Bundesvereinigung Deutscher Apothekerverbände*

Federal Association for Prevention and Health Promotion	*Bundesvereinigung Prävention und Gesundheitsförderung*
Federal Association of SHI Dentists	*Kassenzahnärztliche Bundesvereinigung*
Federal Association of SHI Physicians	*Kassenärztliche Bundesvereinigung*
Federal Association of Sickness Funds (until 2008: various nationwide associations of sickness funds)	*GKV-Spitzenverband (bis 2008: Spitzenverbände der Krankenkassen)*
Federal Association of the Pharmaceutical Industry	*Bundesverband der Pharmazeutischen Industrie*
Federal Centre for Health Education	*Bundeszentrale für gesundheitliche Aufklärung*
Federal Chamber of Physicians (German Medical Association)	*Bundesärztekammer*
Federal Commissioner for the Concerns of Disabled People	*Beauftragter der Bundesregierung für die Belange behinderter Menschen*
Federal Commissioner for the Concerns of Patients	*Beauftragter der Bundesregierung für die Belange der Patientinnen und Patienten*
Federal Commissioner for Narcotics	*Drogenbeauftragter der Bundesregierung*
Federal Committee of Physicians and Sickness Funds (the former)	*Bundesausschuss der Ärzte und Krankenkassen (der frühere)*
Federal Council (Upper Chamber of Parliament)	*Bundesrat*
Federal Financial Supervisory Authority	*Bundesanstalt für Finanzdienstleistungsaufsicht*
Federal Framework Contract	*Bundesmantelvertrag*
Federal Health Report	*Gesundheitsberichterstattung des Bundes*
Federal Institute for Pharmaceuticals and Medical Devices	*Bundesinstitut für Arzneimittel und Medizinprodukte*
Federal Insurance Authority	*Bundesversicherungsamt*
Federal Joint Committee	*Gemeinsamer Bundesausschuss*
Federal Ministry of Education and Research	*Bundesministerium für Bildung und Forschung*
Federal Ministry of Health	*Bundesministerium für Gesundheit*
Federal Ministry of Labour and Social Affairs	*Bundesministerium für Arbeit und Soziales*
Federal Office for Quality Assurance	*Bundesgeschäftsstelle für Qualitätssicherung*
Federal Republic of Germany (official name for the "old" federal states until 1990, since 1990 unified with the "new" federal states in the eastern part of Germany)	*Bundesrepublik Deutschland*
Federal Statistical Office	*Statistisches Bundesamt*
Federation of Consumer Centres	*Verbraucherzenterale Bundesverband*
Forum for the Chronically Ill and Disabled	*Forum chronisch kranker und behinderter Menschen*
gematik (Organization for Telematics Applications of the Health Card)	*gematik (Gesellschaft für Telematikanwendungen der Gesundheitskarte)*
General regional sickness funds	*Allgemeine Ortskrankenkassen*
German Alliance of Self-Help Groups	*Deutsche Arbeitsgemeinschaft Selbsthilfegruppen*
German Association of Ergotherapists	*Verband der Ergotherapeuten*
German Association of Family Physicians	*Deutscher Hausärzteverband (früher: Berufsverband der Allgemeinärzte Deutschlands – Hausärzteverband)*
German Association for Physiotherapy	*Deutscher Verband für Physiotherapie – Zentralverband der Physiotherapeuten/ Krankengymnasten*
German Assocation of Psychotherapists	*Deutscher Psychotherapeutenverband*
German Caritas Association (Catholic Welfare)	*Deutscher Caritasverband*

German Democratic Republic (the former)	*Deutsche Demokratische Republik (die ehemalige)*
German Disability Council	*Deutscher Behindertenrat*
German DRG Institute (Institute for the Payment System in Hospitals)	*Institut für das Entgeltsystem im Krankenhaus*
German Federal Association for Speech Therapy	*Deutscher Bundesverband für Logopädie*
German Forum for Prevention and Health Promotion	*Deutsches Forum Prävention und Gesundheitsförderung*
German Generics Association (previously: Association of Active Pharmaceutical Companies)	*Deutscher Generikaverband (früher: Verband aktiver Pharmaunternehmen)*
German Hospital Federation	*Deutsche Krankenhaus-Gesellschaft*
German Industry Association for Optical, Medical and Mechatronics Technologies (Spectaris)	*Deutscher Industrieverband für optische, medizinische und mechatronische Technologien*
German Institute for Medical Documentation and Information	*Deutsches Institut für medizinische Dokumentation und Information*
German Nursing Association	*Deutscher Berufsverband für Pflegeberufe*
German Nursing Council	*Deutscher Pflegerat*
German Organization of Pharmacists	*Deutscher Apothekerverband*
German Procedure Classification	*Operationen- und Prozedurenschlüssel*
German Red Cross	*Deutsches Rotes Kreuz*
Guild sickness funds	*Innungskrankenkassen*
Hartmann Union (Association of German Physicians; successor to the Leipzig Union)	*Hartmannbund (Verband der Ärzte Deutschlands; zuvor: Leipziger Verband)*
Health Care Reform Act (of 1989)	*Gesundheitsreformgesetz*
Health Care Structure Act (of 1993)	*Gesundheitsstrukturgesetz*
Health Insurance Contribution Rate Exoneration Act	*Krankenversicherungsbeitragsentlastungsgesetz*
Health Insurance Cost-containment Act	*Krankenversicherungskostendämpfungsgesetz*
Hospital Cost-containment Act	*Krankenhaus-Kostendämpfungsgesetz*
Hospital Financing Act	*Krankenhausfinanzierungsgesetz*
Hospital Financing Reform Act	*Krankenhausfinanzierungsreformgesetz*
Hospital plan	*Krankenhausplan*
Imperial Insurance Regulation	*Reichsversicherungsordnung*
Infection Protection Act	*Infektionsschutzgesetz*
Institute for Medical and Pharmaceutical Examination Questions	*Institut für Medizinische und Pharmazeutische Prüfungsfragen*
Institute for Quality and Efficiency in Health Care	*Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen*
Institute of the Valuation Committee	*Institut des Bewertungsausschusses*
Long-Term Care Improvement Act	*Pflege-Weiterentwicklungsgesetz*
Long-term Care Quality Assurance Act	*Pflege-Qualitätssicherungsgesetz*
Long-term Care Realignment Act	*Pflege-Neuausrichtungsgesetz*
Marburg Union (employed (hospital) physicians)	*Marburger Bund – Verband der angestellten und beamteten Ärztinnen und Ärzte*
Mediation Committee (between Federal Assembly and Federal Council)	*Vermittlungsausschuss*
Medical Devices Act	*Medizinproduktegesetz*

Medical treatment centre	*Medizinisches Versorgungszentrum*
Miners' sickness fund	*Knappschaft (früher: Bundesknappschaft)*
Morbidity-based risk-adjustment scheme	*morbiditätsorientierter Risikostrukturausgleich*
Ordinance (issued by ministries)	*Verordnung (von Ministerien)*
Organization for Transparency and Quality in Health Care	*Kooperation für Transparenz und Qualität im Gesundheitswesen*
Patients Rights Act	*Patientenrechtegesetz*
Paul Ehrlich Institute (Federal Institute for Vaccines and Biomedicines)	*Paul Ehrlich-Institut (Bundesamt für Sera und Impfstoffe)*
Pharmaceutical Act	*Arzneimittelgesetz*
Pharmaceutical Budget Redemption Act	*Arzneimittelbudgetablösungsgesetz*
Pharmaceutical Expenditure Limitation Act	*Arzneimittelausgaben-Begrenzungsgesetz*
Pharmaceutical Market Reform Act	*Arzneimittelmarktneuordnungsgesetz*
Pharmaceutical Price Ordinance	*Arzneimittelpreisverordnung*
Physicians' Approbation Ordinance	*Ärztliche Approbationsordnung*
Procedure fee	*Sonderentgelt*
Psychiatric outpatient department	*Psychiatrische Institutsambulanzen*
Quality and Development in Physician Practices	*Qualität und Entwicklung in Praxen*
Reference Price Adjustment Act	*Festbetragsanpassungsgesetz*
Regional Association of SHI Dentists	*Kassenzahnärztliche Vereinigung*
Regional Association of SHI Physicians	*Kassenärztliche Vereinigung*
Risk Structure Reconciliation Regulation	*Risikostruktur-Ausgleichsverordnung*
Robert Koch Institute (Federal Institute for Communicable and Non-Communicable Diseases)	*Robert Koch-Institut*
Round Table on Long-term Care	*Runder Tisch Pflege*
Sailors' sickness fund	*Seekrankenkasse*
Scientific Institute of the General Regional Funds	*Wissenschaftliches Institut der Allgemeinen Ortskrankenkassen*
SHI Care Structures Act	*GKV-Versorgungsstrukturgesetz*
SHI Contribution Rate Exoneration Act	*Krankenversicherungsbeitragsentlastungsgesetz*
SHI Financing Act	*GKV-Finanzierungsgesetz*
SHI Medical Review Board	*Medizinischer Dienst der Krankenversicherung*
SHI Modernization Act	*GKV-Modernisierungsgesetz*
SHI Reform Act	*GKV-Änderungsgesetz*
Social Code Book (V, Statutory Health Insurance; IX, Rehabilitation and Participation of Disabled People; XI, Statutory Long-term Care Insurance	*Sozialgesetzbuch (V,Gesetzliche Krankenversicherung; IX, Rehabilitation und Teilhabe behinderter Menschen; XI, Soziale Pflegeversicherung)*
State(s)	*Land (Länder)*
Statutory health insurance	*Gesetzliche Krankenversicherung*
Statutory long-term care insurance	*Soziale Pflegeversicherung*
Subcommittee on Methods Assessment (of Federal Joint Committee)	*Unterausschuss Methodenbewertung (von Gemeinsamer Bundesausschuss)*
Substitute funds	*Ersatzkassen*

Uniform Value Scale	*Einheitlicher Bewertungsmaßstab*
University Capital Investment Act	*Hochschulbaufördergesetz*
Valuation Committee	*Bewertungsausschuss*
Workers' compensation funds	*Berufsgenossenschaften*
Workers' Welfare Organization	*Arbeiterwohlfahrt*
Working Group of Senior State Health Officials	*Arbeitsgemeinschaft der leitenden Ministerialbeamten der obersten Landesgesundheitsbehörden*

List of abbreviations

AIDS	Acquired immunodeficiency syndrome
AOK	General regional sickness funds (*Allgemeine Ortskrankenkassen*)
BKK	Company-based sickness fund (*Betriebskrankenkassen*)
BQS	Federal Office for Quality Assurance (*Bundesgeschäftsstelle für Qualitätssicherung*)
COPD	Chronic obstructive pulmonary disease
DDD	Defined daily dose
DMP	Disease management programme
DRG	Diagnosis-related group (*Diagnose-bezogene Fallpauschale*)
eGK	Electronic health card
ENT	Ear, nose and throat
EU	European Union
EU13	13 Member States as of May 2004, January 2007 or July 2013 respectively
EU15	15 EU Member States before May 2004
EU28	28 EU Member States at 1 July 2013
GDP	Gross domestic product
G-DRG	German DRG
GP	General practitioner
HIV	Human immunodeficiency virus
IKK	guild sickness funds (*Innungskrankenkassen*)
MRI	Magnetic resonance imaging
OECD	Organisation for Economic Co-operation and Development
OTC	Over the counter
PHI	Private health insurance
SGB	Social Code Book
SGB-IX	SGB for Rehabilitation and Participation of Disabled People
SGB-V	SGB for Statutory Health Insurance
SGB-XI	SGB for Statutory Long-term Care Insurance
SHI	Statutory health insurance (*Gesetzliche Krankenversicherung*)
SVR	Advisory Council for the Assessment of Developments in the Health Care System (*Sachverständigenrat zur Begutachtung der Entwicklung im Gesundheitswesen*)

VAT	Value-added tax
WHO	World Health Organization

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Abstract

This analysis of the German health system reviews recent developments in organization and governance, health financing, health care provision, health reforms and health system performance. In the German health care system, decision-making powers are traditionally shared between national (federal) and state (*Land*) levels, with much power delegated to self-governing bodies. It provides universal coverage for a wide range of benefits. Since 2009, health insurance has been mandatory for all citizens and permanent residents, through either statutory or private health insurance. A total of 70 million people or 85% of the population are covered by statutory health insurance in one of 132 sickness funds in early 2014. Another 11% are covered by substitutive private health insurance. Characteristics of the system are free choice of providers and unrestricted access to all care levels. A key feature of the health care delivery system in Germany is the clear institutional separation between public health services, ambulatory care and hospital (inpatient) care. This has increasingly been perceived as a barrier to change and so provisions for integrated care are being introduced with the aim of improving cooperation between ambulatory physicians and hospitals. Germany invests a substantial amount of its resources on health care: 11.4% of gross domestic product in 2012, which is one of the highest levels in the European Union. In international terms, the German health care system has a generous benefit basket, one of the highest levels of capacity as well as relatively low cost-sharing. However, the German health care system still needs improvement in some areas, such as the quality of care. In addition, the division into statutory and private health insurance remains one of the largest challenges for the German health care system, as it leads to inequalities.

Executive summary

The Federal Republic of Germany is in central Europe, with 81.8 million inhabitants (December 2011), making it by some distance the most populated country in the European Union (EU). Berlin is the country's capital and, with 3.5 million residents, Germany's largest city.

In 2012 Germany's gross domestic product (GDP) amounted to approximately €32 554 per capita (one of the highest in Europe). Germany is a federal parliamentary republic consisting of 16 states (*Länder*), each of which has a constitution reflecting the federal, democratic and social principles embodied in the national constitution known as the Basic Law (*Grundgesetz*).

By 2010, life expectancy at birth in Germany had reached 78.1 years for men and 83.1 years for women (slightly below the Eurozone average of 78.3 years for men and 84.0 years for women, although the gap with other similar European countries has been narrowing). Within Germany, the gap in life expectancy at birth between East and West Germany peaked in 1990 at 3.5 years for men and 2.8 years for women, but narrowed following reunification to 1.3 years for men and 0.3 years for women.[1] Moreover, differences in life expectancy in Germany no longer follow a strict east–west divide. The lowest life expectancy for women in 2004, for example, was observed in Saarland, a *Land* in the western part of the country.

A fundamental facet of the German political system – and the health care system in particular – is the sharing of decision-making powers between the *Länder*, the federal government and civil society organizations. In health care, the federal and *Länder* governments traditionally delegate powers to membership-based (with mandatory participation), self-regulated organizations

[1] This publication will refer to the former German Democratic Republic (*die ehemalige Deutsche Demokratische Republik*) as East Germany and the Federal Republic of Germany (*Bundesrepublik Deutschland*) in its pre-1990 borders as West Germany.

of payers and providers, known as "corporatist bodies". In the statutory health insurance (*Gesetzliche Krankenversicherung* (SHI)) system, these are, in particular, sickness funds and their associations together with associations of physicians accredited to treat patients covered by SHI. These corporatist bodies constitute the self-regulated structures that operate the financing and delivery of benefits covered by SHI, with the Federal Joint Committee (*Gemeinsamer Bundesausschuss*) being the most important decision-making body. The Social Code Book (*Sozialgesetzbuch* (SGB)) provides regulatory frameworks; SGB V has details decided for SHI.

Since 2009, health insurance has been mandatory for all citizens and permanent residents, either through SHI or private health insurance (PHI). SHI covers 85% of the population – either mandatorily or voluntarily. Cover through PHI is mandatory for certain professional groups (e.g. civil servants), while for others it can be an alternative to SHI under certain conditions (e.g. the self-employed and employees above a certain income threshold). In 2012, the percentage of the population having cover through such PHI was 11%. PHI can also provide complementary cover for people with SHI, such as for dental care. Additionally, 4% of the population is covered by sector-specific governmental schemes (e.g. for the military). People covered by SHI have free choice of sickness funds, and are all entitled to a comprehensive range of benefits.

Germany invests a substantial amount of its resources in health care. According to the Federal Statistical Office (*Statistisches Bundesamt*), which provides the latest available data on health expenditure, total health expenditure was €300.437 billion in 2012, or 11.4% of GDP (one of the highest in the EU). This reflects a sustained increase in health care expenditure even following the economic crisis in 2009 (with total health expenditure rising from 10.5% of GDP in 2008).

Although SHI dominates the German discussion on health care expenditure and reform(s), its actual contribution to overall health expenditure was only 57.4% in 2012. Altogether, public sources accounted for 72.9% of total expenditure on health, with the rest of public funding coming principally from statutory long-term care insurance (*Soziale Pflegeversicherung*). Private sources accounted for 27.1% of total expenditure. The proportion of health care financed from taxes has decreased throughout the last decades, falling from 10.8% in 1996 to 4.8% in 2012. The most significant decrease of public expenditure was recorded for long-term care (over 50%) with the introduction of mandatory long-term care insurance in 1993 shifting financing away from means-tested social assistance.

The 132 sickness funds collect contributions and transfer these to the Central Reallocation Pool (*Gesundheitsfonds*; literally, "Health Fund").[2] Contributions increase proportionally with income to an upper threshold (a monthly income of €4050 in 2014). Since 2009 there has been a uniform contribution rate (15.5% of income). Resources are then redistributed to the sickness funds according to a morbidity-based risk-adjustment scheme (*morbiditätsorientierter Risikostrukturausgleich*; often abbreviated to Morbi-RSA), and funds have to make up any shortfall by charging a supplementary premium.

Sickness funds pay for health care providers, with hospitals and physicians in ambulatory care (just ahead of pharmaceuticals) being the main expenditure blocks. Hospitals are financed through "dual financing", with financing of capital investments through the *Länder* and running costs through the sickness funds, private health insurers and self-pay patients – although the sickness funds finance the majority of operating costs (including all costs for medical goods and personnel). Financing of running costs is negotiated between individual hospitals and *Länder* associations of sickness funds, and primarily takes place through diagnosis-related groups (*Diagnose-bezogene Fallpauschale*; DRGs). Public investment in hospital infrastructure has declined by 22% over the last decade and is not evenly distributed; in 2012, hospitals in the western part of Germany received 83% of such public investment.

Payment for ambulatory care is subject to predetermined price schemes for each profession (one for SHI services and one for private services). Payment of physicians by the SHI is made from an overall morbidity-adjusted capitation budget paid by the sickness funds to the regional associations of SHI physicians (*Kassenärztliche Vereinigungen*), which they then distribute to their members according to the volume of services provided (with various adjustments). Payment for private services is on a fee-for-service basis using the private fee scale, although individual practitioners typically charge multiples of the fees indicated.

In 2012, there were 2017 hospitals with a total of 501 475 beds (6.2 beds per 1000; higher than any other EU country). Of these, 48% of beds were in publicly owned hospitals, 34% in private non-profit and 18% in private for-profit hospitals. Both SHI and PHI (as well as the two long-term care insurance schemes) use the

[2] The German term *Gesundheitsfonds* was presumably chosen by policy-makers to make this far-reaching reform of the SHI system more palatable to the general public. In some of the literature, the term is unhelpfully translated into English as "Health Fund", which is equally vague and can lead to great confusion considering that the English translation of "*Krankenkasse*" is "Sickness Fund" (which itself can be confusing to English speakers unfamiliar with Bismarckian systems of social insurance). In the present volume, *Gesundheitsfonds* will be translated as "Central Reallocation Pool" for the sake of clarity.

same providers. Although acute hospital beds have been reduced substantially since 1991, the number of acute hospital beds is still almost 60% higher than the EU15 (15 EU Member States before May 2004) average. The average length of stay decreased steadily between 1991 and 2011, falling from 12.8 to 7.7 days.

Health care is an important employment sector in Germany, with 4.9 million people working in the health sector, accounting for 11.2% of total employment at the end of 2011. According to the WHO Regional Office for Europe's Health for All database, 382 physicians per 100 000 were practising in primary and secondary care. Thus, the density of physicians in Germany was slightly above the EU15 average and substantially higher than the EU28 (Member States at 1 July 2013) average; the relative numbers of nurses and dentists are also higher than the EU average. With the EU enlargements of 2004 and 2007, a growing migration of health professionals to Germany had been expected. In fact, the number of foreign health workers grew from 2000 and reached its peak in 2003, thus before the enlargements. The extent of migration to Germany is relatively small compared with that to other destination countries in the EU.

Ambulatory health care is mainly provided by private for-profit providers. Patients have free choice of physicians, psychotherapists (including psychologists providing psychotherapy, since 1999), dentists, pharmacists and emergency room services. Although patients covered by SHI may also go to other health professionals, access to reimbursed care is available only upon referral by a physician. In 2012, of the 121 198 practising SHI-accredited physicians in Germany (psychotherapists not included), 46% were practising as family physicians and 54% as specialists. German hospitals have traditionally concentrated on inpatient care, with strict separation from ambulatory care. This rigid separation has been made more permeable in recent years and now hospitals are partially authorized to provide outpatient services and to participate in integrated care models and disease management programmes (DMPs).

For pharmaceuticals, while hospitals may negotiate prices with wholesalers or manufacturers, the distribution chain and prices are much more regulated in the pharmacy market. In both sectors, manufacturers are free in theory to set prices without direct price controls or profit controls. However, there is a reference pricing system for SHI reimbursement, which has been steadily strengthened over recent years, whereby "reference" prices are defined nationally for groups of similar pharmaceuticals with reimbursement capped at that level. Although prices can be set higher (with the patient paying the difference), in practice very few drugs exceed the reference price. For pharmaceuticals with an additional benefit beyond existing reference price groups, reimbursement

amounts are negotiated between the manufacturer and the Federal Association of Sickness Funds (*GKV-Spitzenverband*). Patients generally pay co-payments for pharmaceuticals of €5–10; there are also other cost-saving measures, such as provisions for generic substitution. Of the pharmaceutical industry's total turnover in 2011 of €38.1 billion, €14.3 billion was gained in the domestic market and €23.8 billion from exports (62.5%); Germany is the third largest producer of pharmaceuticals in the world after the United States and Japan.

Public health is principally the responsibility of the *Länder*, covering issues such as surveillance of communicable disease and health promotion and education. Historically, the *Länder* have resisted the influence of the federal government on public health, and although some elements of public health have been included in SHI in recent decades (such as cancer screening), and other interventions have separate agreements (e.g. immunizations), a "prevention act" at federal level intended to consolidate and clarify responsibilities in this area in 2005 was ultimately rejected by the Federal Assembly (*Bundesrat*).

Governmental policy since the early 2000s has principally focused on cost-containment and the concept of a sustainable financing system. The government in office at the time of writing, again a grand coalition of Christian Democrats and Social Democrats, has agreed a focus on quality, especially in hospitals.

In international terms, the German health care system has a generous benefit basket, one of the highest levels of capacity as well as relatively low levels of cost-sharing. Expenditure per capita is relatively high but expenditure growth since the early 2000s has been modest in spite of a growing number of services provided both in hospital and ambulatory care, an indication of technical efficiency. In addition, access is good – evidenced by low waiting times and relatively high satisfaction with out-of-hours care.

However, the German health care system also shows areas in need of improvement if compared with other countries. This is demonstrated by the low satisfaction figures with the health system in general; respondents see a need for major reform more often than in many other countries. Another area is quality of care, in spite of all reforms having taken place. Germany is rarely placed among the top OECD or EU15 countries, but usually around average, and sometimes even lower.

In addition, the division into SHI and PHI remains one of the largest challenges for the German health care system – as risk pools differ and different financing, access and provision lead to inequalities.

1. Introduction

1.1 Geography and sociodemography

The Federal Republic of Germany is situated in central Europe and covers an area of approximately 357 000 km^2. The country extends 876 km from north to south at its longest point and 640 km at its greatest width. It shares borders with Denmark, Poland, the Czech Republic, Austria, Switzerland, France, Luxembourg, Belgium and the Netherlands (Fig. 1.1).[3] As of December 2011, Germany had some 81.8 million inhabitants, 41.7 million of whom were women and 40.1 million of whom were men.[4]

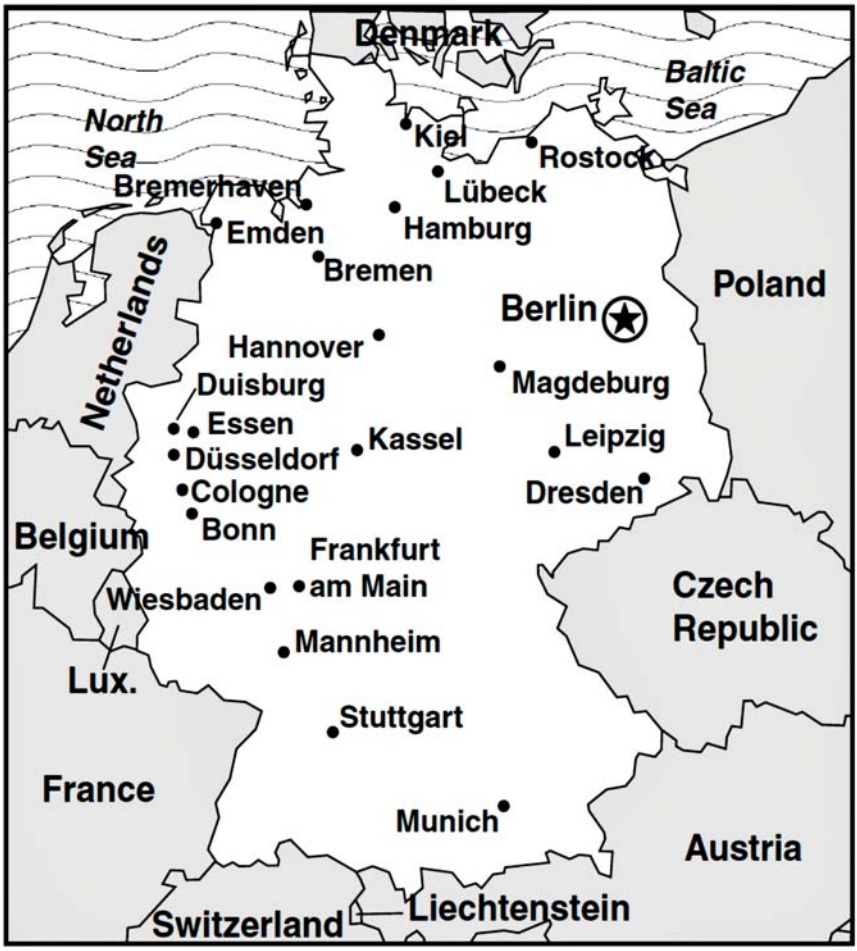
The territory of the former German Democratic Republic in the eastern part of Germany accounts for 108 000 km^2, or 30% of the country's total area. Its 13 million residents (excluding Berlin) represent approximately 16% of the country's total population. Population density in the eastern part of the country is lower than in the western part and also varies considerably between the different *Länder*, ranging from 71 inhabitants/km^2 in Mecklenburg-West Pomerania to 3861 inhabitants/km^2 in Berlin. Of the 20 cities in Germany with more than 300 000 inhabitants, only three (including Berlin) are in the east. Berlin is the country's capital and, with 3.5 million residents, its largest city. Other densely populated areas are the Rhine-Ruhr region, with 11 million people, and the Rhine-Main region surrounding the city of Frankfurt, with 2.9 million residents (Statistisches Bundesamt, 2013g).

Among the 7.2 million inhabitants without German citizenship (8.8% of total population; 6.4% on EU average) there are 25% Turks. Around 2.4 million residents (33%) are citizens of an EU Member State; another 1.2 million (17%)

[3] The maps in this publication do not imply the expression of any opinion whatsoever on the part of the European Observatory on Health Systems and Policies or any of its partners concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

[4] In 2011, a census was carried out in Germany (published in 2013), following which the data on the population were reduced by a total of some 1.2 million inhabitants. To avoid a break in time series, the data here and in the following calculations are based on the previous information.

Fig. 1.1
Map of Germany and neighbouring countries



Source: CIA, 2013.

come from other parts of Europe and 1.4 million (20%) are non-European. The proportion of immigrants varies considerably between the *Länder*, ranging from 1.8% in Saxony-Anhalt to 14% in Berlin.

In 2011, 30.1% of the population was Catholic, 30.2% Protestant, around 4.5% Muslim, 1.5% Orthodox, 0.5% New Apostolic, 0.2% Buddhist and 0.1% Jewish.

Several trends in population age distribution have been observed in recent decades and are expected to become more pronounced in the future. In both the west and the east, the share of the population below 15 years of age, for

example, decreased from 24.5% in 1970 to 13.8% in 2010. Between 1970 and 2011, the share of those 65 years of age or older increased from 13.9% to 20.7%. Finally, the share of population 80 years of age or older increased to 5.3% in 2011 and is expected to increase to 14% by 2060 (Table 1.1; Statistisches Bundesamt, 2013g).

Table 1.1
Population/demographic indicators, 1991–2011

Indicator	1991	2000	2005	2007	2008	2009	2010	2011
Total population (in thousands)[a]	79 753	82 260	82 438	82 218	82 002	81 802	81 752	81 844
Population, female (% of total)	51.7	51.2	51.1	51.0	51.0	50.9	51.0	51.0
Population aged 0–14 years (% of total)	16.3	15.6	14.3	13.8	13.7	13.7	13.8	–
Population aged 65 years and older (% of total)	15.0	16.4	18.9	19.9	20.2	20.3	20.6	20.7
Population aged 80 years and older (% of total)	3.8	3.7	4.4	4.7	4.9	5.0	5.2	5.3
Population growth (annual %)	0.7	0.1	–0.1	–0.1	–0.2	–0.2	–0.1	0.1
Population density (per km^2)[a]	224.0	230.4	230.9	230.2	229.6	229.1	229.0	229.0
Fertility (children per woman aged 15–49 years)	1.33	1.38	1.34	1.37	1.38	1.40	–	–
Birth rate, crude (per 1,000 population)[a]	10.4	9.3	8.3	8.3	8.3	8.3	8.3	8.1
Death rate, crude (per 1,000 population)[a]	11.4	10.2	10.1	10.0	10.3	10.5	10.5	10.4
Dependency ratio[b]	45.4	47.2	49.8	51.0	51.3	51.5	51.6	51.7
Single-person households (% of all households)[a]	33.6	36.1	37.5	38.7	39.4	39.8	40.2	40.4
Educational attainment below upper secondary level (% of population)	–	18.0	17.0	16.0	14.0	14.0	–	–
Educational attainment at upper secondary level (% of population)	–	58.0	59.0	60.0	60.0	59.0	–	–
Educational attainment at tertiary level (% of population)	–	23.0	25.0	24.0	25.0	26.0	–	–

Sources: OECD, 2013a; [a]Statistisches Bundesamt, 2013g.
Note: [b]Ratio of the combined child (aged 0–14) and elderly (aged 65+) population to the working age population (aged 15–64).

1.2 Economic context

Germany is a member of the G8 group of leading industrial nations. In 2012, Germany's GDP amounted to more than €2.6 trillion,[5] or approximately €32 554 per capita. Annual real GDP growth reached a post-reunification peak of 3.2% in 2000 but fell to −0.2% in 2003. By the end of 2008, this indicator had risen again, reaching 1.0% for that year. In the wake of the global economic downturn, GDP fell in 2009 to slightly above €2.4 trillion (Table 1.2). In real

[5] A billion is defined as a thousand million (10^9) and a trillion as a thousand billion (10^{12}) throughout this document.

Table 1.2

Macroeconomic indicators for Germany, 2000–2012

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
GDP at current prices (in € billions)	2 063	2 113	2 143	2 164	2 211	2 242	2 325	2 428	2 496	2 407	2 498	2 593	2 644
GDP (in billion US$ PPP)	2 133	2 212	2 275	2 357	2 466	2 587	2 710	2 853	2 910	2 816	3 108	3 227	3 307
GDP per capita (US$)	23 016	22 911	24 511	29 457	33 078	33 985	35 282	40 433	44 700	40 375	39 953	44 290	41 828
GDP per capita (US$ PPP)	25 945	26 856	27 585	28 588	29 890	31 364	32 900	34 682	35 436	34 008	37 525	39 662	40 725
Average annual GDP growth (%)	3.2	1.2	0.0	–0.2	1.2	0.8	3.4	2.7	1.0	–5.1	4.2	3.0	0.7
Inequality of income distribution (Gini coefficient)	0.245[a]	0.248[a]	–	0.264[a]	0.262[a]	0.289[b]	0.285[b]	0.286[b]	0.285[b]	0.290[b]	0.290[b]	0 290[b]	0.290[b]
Public debt (€ billions)[a]	1 211	1 224	1 277	1 358	1 430	1 490	1 545	1 552	1 578	1 694	2 011	2 025	–
Economically active people (thousands)[b]	42 175	42 402	42 517	42 551	42 956	43 330	43 274	43 258	43 361	43 551	43 512	43 618	43 881
Unemployment (% of labour force)[a]	9.6	9.4	9.8	10.5	10.5	11.7	10.8	9.0	7.8	8.2	7.7	7.1	6.8
US$ exchange rate (€ per US$)	1.09	1.12	1.06	0.89	0.81	0.80	0.80	0.73	0.68	0.72	0.80	0.70	0.80

Sources: OECD, 2013a; [a]Statistisches Bundesamt, 2008a; [b]Statistisches Bundesamt, 2013b.
Note: PPP: Purchasing power parity.

terms, this represents a contraction of roughly 5.1%, surpassing the 0.8% decline in 1993, which had been the largest since reunification. Average annual real GDP growth in Germany has remained below the OECD average since 1990 (OECD, 2013a).

During the 2000s, the unemployment rate in Germany was above the EU and OECD average. After a brief decline at the turn of the millennium, it began to increase again over the following years, only to decrease to 7.8% in 2008 (Table 1.2). Due to the increasing unemployment rate in other countries and the simultaneous decline in Germany (to 7.7% in 2010 after 8.2% in 2009), since 2009 the German unemployment rate has been below international average. In 2012, the unemployment rate was 6.8%, ranging in the eastern part of Germany (average, 10.7%) between 8.5% in Thuringia and 12.0% in Mecklenburg-West Pomerania. In the western part of the country (average, 5.9%), the unemployment rate varied between 3.7% in Bavaria and 11.2% in Bremen. There is also a north–south divide in unemployment, with a lower rate in the south part of Germany.

Between 1992 and 2005, the size of the labour force as a share of the total population decreased only slightly, from 47.2% to 47.0%, and then rose to 51.9% in 2012. The percentage of individuals subject to mandatory social insurance contributions fell from 33.9% in 2000 to 31.8% in 2005, only to rise to 35.4% in 2012. Between 2000 and 2012, full-time employment declined in favour of self-employment and part-time work (Statistisches Bundesamt, 2013g). These trends have an impact on the revenue side of the various statutory insurance schemes (see section 3.3.2). The inequality of income distribution tends to grow in Germany, as shown by the increasing Gini coefficient. Table 1.2 shows the most important macroeconomic indicators for Germany between 2000 and 2012.

1.3 Political context

Germany is a federal parliamentary republic consisting of 16 *Länder* (states; Fig. 1.2), each of which has a constitution that is consistent with the federal, democratic and social principles embodied in the national constitution, which is known as the Basic Law.

The constitutionally defined legislative bodies are the Federal Assembly (*Bundestag*; lower chamber) and the Federal Council (*Bundesrat*; upper chamber).

Fig. 1.2
Political map of Germany at the state (*Land*) level

Source: Authors' own compilation.

The Federal Assembly (*Bundestag*) is made up of at least 598 members elected every four years. Under certain circumstances related to the system of mixed-member proportional representation, some candidates may win so-called overhang seats, which – together with compensatory seats – increase the overall number of seats in the Federal Assembly (*Bundestag*). Since the election on 22 September 2013, the Federal Assembly has a total of 631 seats: the Christian Democratic Union (*Christlich Demokratische Union*) 255, the Christian Social Union (*Christlich-Soziale Union*) 56 (together 311), the Social Democratic Party (*Sozialdemokratische Partei Deutschlands*) 193, the Left Party (*Die Linke*) 64,

and Alliance 90 (*Bündnis 90*)/The Greens (*Die Grünen*) 63. The main functions of the Federal Assembly (*Bundestag*) are to pass laws, elect the chancellor and hold the government accountable (Deutscher Bundestag, 2014).

The Federal Council (*Bundesrat*), which represents the 16 *Länder*, does not consist of directly elected representatives but rather of representatives from each *Land* government, each having between three and six of a total of 69 votes. The main function of the Federal Council (*Bundesrat*) is to deliberate and enact laws passed by the Federal Assembly (*Bundestag*).

Approximately half of all bills require the formal approval of the Federal Council (*Bundesrat*), while in other cases its negative vote can be overruled by the Federal Assembly (*Bundestag*). The requirement for passage by both chambers applies in particular to bills that are of vital interest to the *Länder*, especially those concerning financial or administrative matters. Passing laws that need the approval of both chambers is often difficult and requires compromise because the political majority in each chamber is typically held by opposing parties or coalitions. Compromises are often reached by the 32 member Mediation Committee (*Vermittlungsausschuss*; 16 from the *Bundestag* and 1 from each *Land*) before being passed by both chambers.

The president of Germany (since February 2012 Joachim Gauck) is elected for five years by an assembly consisting of the members of the Federal Assembly (*Bundestag*) and an equal number of representatives from the *Länder* according to the size of their population. The president's role is largely ceremonial. His or her chief tasks are to sign new laws, to formally appoint the chancellor and the federal ministers and to serve as head of state.

Legislative authority is exercised by the 16 *Länder* except in areas for which it has been reserved explicitly for the federal level. Legislative authority at the federal level falls into two different categories: (1) exclusive legislation (pertaining mainly to foreign policy, defence, currency and money, citizenship, unity of tax and trading zone, aviation and some elements of taxation) and (2) concurrent legislation. For areas that fall neither within the exclusive remit of the federal government nor within that of the *Länder* (e.g. criminal law, road traffic and consumer protection), the *Länder* may exercise legislative authority only when the federal government has not already done so.

In principle, the *Länder* can fill in any gaps left by federal legislation or in areas not specified by the Basic Law. As an expression of their cultural sovereignty, they are responsible for almost all matters pertaining to culture and education (see section 4.2.3).

The chief strength of the *Länder*, however, lies in their participation in the legislative process at the federal level through the Federal Council (*Bundesrat*). Administrative affairs, such as tax collection, also fall into their remit, and their administrative bodies implement most federal laws and ordinances (*Verordnung*). Furthermore, they are responsible for legislation defining the powers of local government and the police.

The government's cabinet consists of the chancellor (since 2005 Angela Merkel), who is head of government, and the federal ministers. The chancellor determines the number of ministers and their responsibilities and chooses the ministers and proposes them to the president for appointment or dismissal. The strong position enjoyed by the chancellor is primarily a consequence of his or her authority to establish the guidelines for government policy; the federal ministers run their ministries independently but within the scope of these guidelines.

Aside from the legislative and executive branches of government, the various court systems (e.g. the administrative, constitutional, civil and social courts) represent a strong third pillar of decision-making.

1.4 Health status

An important source of nationwide health data is the Basic Health Report 1998 (*Gesundheitsbericht Deutschland 1998*), which has been updated in part and supplemented by data on specific topics, including cost of illness estimates. In addition, a report entitled Health in Germany (*Gesundheit in Deutschland*) was published in 2006. Data from the Federal Health Monitoring System are available on the Internet free of charge (www.gbe-bund.de). The Hospital Diagnoses Statistics are another source of national morbidity data and have been compiled by the Federal Statistical Office since 1993. In 1995, the Cancer Registry Act came into effect, stipulating that every *Land* was to establish a cancer registry by 1999. Because implementation of the Act has been slow, however, data on incidence and prevalence are still incomplete (Robert Koch-Institut, 2010). Data are also derived from a variety of representative population surveys and the compulsory reporting of infectious diseases. Other morbidity data are drawn from the social SHI system, which covers approximately 86% of the population; these data include statistics on expenditure, hospitalization and the receipt of cash or other benefits that require prior authorization from sickness funds, as well as data on prescription drugs.

Both the Health for All database of the WHO Regional Office for Europe and the OECD Health Data, which are published annually, provide a useful overview of international comparative health statistics.

In addition, a regular nationwide survey known as the Microcensus gathers subjective data on the perceived health status of a representative sample of the German population. According to the 2009 survey, approximately 85.4% of respondents regarded themselves as healthy, 14.6% as sick or injured due to an accident. In total, 85% of children under the age of 5 years were considered healthy. The share of those who regarded themselves as healthy was largest among 15 to 20 year olds (91%) and decreased with advancing age, falling to 79% among 70 to 74 year olds and 71% among those over 74 (Statistisches Bundesamt, 2010b).

1.4.1 Life expectancy

By 2010, life expectancy at birth in Germany had reached 78.1 years for men and 83.1 years for women (Table 1.3). For both genders, this indicator has remained below the EU15 average but the difference has halved since 1990 (to 0.4 years for men and 0.8 years for women in 2010). According to World Health Organization (WHO) data, disability-adjusted life expectancy in 2007 was 71.1 years for men, 74.6 years for women and 72.8 years for both genders combined, ranking just below the EU15 average of 73.0 years (WHO Regional Office for Europe, 2013). Among adult women of all ages, the all-cause standardized death rate per 1000 women decreased from 6.7 to 4.4 between 1990 and 2011, remaining consistently below the rate observed among all adult men, which fell from 11.2 to 6.7 per 1000 men during this same period – equally halving about the difference to the lower EU15 average. Among women under the age of 65, the all-cause standardized death rate also remained considerably lower than among men in the same age group, falling from 1.9 to 1.2 per 1000 women and from 3.9 to 2.3 per 1000 men between 1990 and 2011. The rate of infant deaths also decreased, falling from 7.1 to 3.4 per 1000 live births between 1990 and 2010 (i.e. to slightly below the EU15 average of 3.6) (Table 1.3).

The health of the German population may also be analysed against the backdrop of 40 years of political and geographical separation before reunification in 1990, providing a fascinating case study for changes in health resulting from political, social and economic factors within an otherwise largely homogeneous population. The most obvious indicator of different patterns of health in two populations is life expectancy at birth, which initially increased more quickly in East Germany (albeit starting at a slightly higher level) but stagnated in the

Table 1.3
Mortality and health indicators, 1990–2011 (selected years)

Indicator	1990	2000	2005	2006	2007	2008	2009	2010	2011
Life expectancy at birth (years)	75.5	76.8	79.5	80.0	80.2	80.3	80.4	80.6	–
Life expectancy at birth, female (years)	78.6	81.3	82.1	82.6	82.8	82.8	82.9	83.1	–
Life expectancy at birth, male (years)	72.1	75.2	76.8	77.3	77.5	77.8	77.9	78.1	–
SDR all causes, all ages, female (per 1 000)	6.7	5.3	5.0	4.8	4.7	4.7	4.6	4.5	4.4
SDR all causes, 0–64, female (per 1 000)	1.9	1.5	1.3	1.3	1.3	1.3	1.3	1.2	1.2
SDR all causes, all ages, male (per 1 000)	11.2	8.8	7.8	7.4	7.3	7.2	7.1	7.0	6.7
SDR all causes, 0–64, male (per 1 000)	3.9	2.9	2.6	2.5	2.4	2.4	2.4	2.3	2.3
Infant deaths per 1 000 live births	7.1	4.4	3.9	3.8	3.9	3.5	3.5	3.4	–

Source: WHO Regional Office for Europe, 2013.
Note: SDR: Standardized death rate.

late 1960s. In contrast, life expectancy at birth grew continuously from the late 1960s in West Germany. Between 1980 and 1990, the gap in life expectancy widened, peaking in 1990 at 3.5 years for men and 2.8 years for women.

The gap in life expectancy at birth between the eastern and western parts of the country began to narrow following reunification and has continued to do so. By 2006, the gap between the east and west had narrowed to 1.3 years for men and 0.3 years for women. Moreover, between 1990 and 2006, the difference in life expectancy between men and women decreased from 7.1 years to 6.1 years in the east and from 6.4 years to 5.1 years in the west. It should be noted, however, that differences in life expectancy in Germany no longer follow a strict east–west divide. The lowest life expectancy for women in 2004, for example, was observed in Saarland, in the western part of the country. There, women had a life expectancy at birth that was a full 2.2 years below that seen in Baden-Wurttemberg, the *Land* with the highest female life expectancy during the reference period, and – like Saarland – also in the west of Germany. This being said, the biggest contrast in male life expectancy was the gap of 3.4 years seen between, on the one hand, the eastern *Länder* of Saxony-Anhalt and Mecklenburg-West Pomerania and, on the other hand, the higher-ranking *Land* of Baden-Wurttemberg (Statistisches Bundesamt, 2010a).

The reasons for the differences in life expectancy in the two parts of Germany are complex and not fully understood. Explanations for the widening gap before 1990 include differences in diet, better living conditions in West Germany, differences in access to high-technology care, better health care at all levels of provision and the selective migration of pensioners from East to

West Germany. Explanations for the narrowing gap after 1990 include selective migration, the adoption of the West German system of social welfare and a reduction in health risk factors such as the consumption of alcohol, meat and fat (McKee et al., 1996; Nolte, Koupilova & McKee, 2000; SVR, 2006).

Medical care has been identified as another important component in the post-reunification decline in mortality observed in the eastern part of the country. According to a study examining the period from 1992 to 1997, between 14% and 23% of the increase in life expectancy between birth and the age of 75 could be attributed to medical intervention. During this period, life expectancy increased by 1.4 years for men and 0.9 years for women in the east, and by 0.6 years for men and 0.3 years for women in the west. The improvements in the east most likely reflect declining rates of mortality from hypertension, cerebrovascular disease, cervical cancer and cancer of the female breast, as well as to a 30% decline in neonatal mortality (Nolte, Koupilova & McKee, 2000; Nolte et al., 2002).

These results are supported by a growing technological infrastructure and the use of highly specialized care, including dialysis facilities, coronary catheterization (see section 2.7.2), the surgical treatment of ischaemic heart disease and pacemaker implantation (Sachverständigenrat für die Konzertierte Aktion im Gesundheitswesen, 2002; Busse & Nolte, 2004).

1.4.2 Mortality

In 2011, a total of 852 328 deaths versus 662 685 live births were recorded, the corresponding figures in 2006 were 821 627 and 672 724, respectively (Statistisches Bundesamt, 2013g). The crude death rate decreased in both parts of Germany after 1975, with the exception of a transient increase in the east during the years 1990 and 1991 and in the west during the years 1993 and 1994. Since 1994, the crude death rate has decreased slowly but continuously despite the increasing share of elderly individuals in the total resident population.

Table 1.4 shows that most age-standardized death rates decreased substantially between 1990 and 2011. This positive development is also reflected in the increases seen in life expectancy at birth and in the other age groups (Table 1.3). The two most common causes of death by far in Germany are diseases of the circulatory system and malignant neoplasms, followed by diseases of the respiratory system, mental disorders and diseases of the nervous system, and diseases of the digestive system (Table 1.4). In total, the mortality rate decreased between 1990 and 2011. A considerable improvement can also be observed when looking separately at individuals aged 0 to 64 years and

Table 1.4

Age-standardized death rates per 100 000 population, 1990–2011

Indicator	1990	2000	2005	2010	2011
Infectious diseases					
Infectious and parasitic disease	5.8	8.6	9.1	10.1	10.5
Tuberculosis	1.3	0.5	0.3	0.2	0.2
Non-infectious diseases					
Diseases of the circulatory system	398.6	292.5	254.1	208.7	196.6
Age group 0–64 years	75.7	50.1	42.7	35.7	33.9
Age group 65 years and older	3 011.0	2 253.8	1 964.9	1 608.8	1 513.1
Ischaemic heart disease	153.0	126.9	104.2	80.9	75.1
Cerebrovascular diseases	87.6	58.6	45.5	35.9	33.5
Malignant neoplasms	200.4	182.1	168.0	158.6	157.9
Age group 0–64 years	88.1	76.3	69.9	64.6	64.3
Age group 65 years and older	1 109.0	1 038.3	961.7	919.4	914.9
Malignant neoplasm of trachea/bronchus/lung	35.4	35.5	33.9	33.2	33.4
Malignant neoplasm of the cervix	4.8	3.3	2.7	2.5	2.6
Malignant neoplasm of the female breast	31.2	28.4	26.2	24.0	24.3
Diseases of the respiratory system	50.5	39.1	40.2	37.0	36.2
Age group 0–64 years	10.4	7.0	6.9	7.0	7.3
Age group 65 years and older	374.5	298.7	309.0	280.1	269.5
Bronchitis, emphysema and asthma	22.9	20.1	18.2	18.4	18.3
Acute respiratory infections, pneumonia and influenza in children under 5 years	4.7	0.8	1.2	0.7	1.1
Diseases of the digestive system	41.2	35.6	34.3	30.3	28.4
Age group 0–64 years	21.5	18.2	15.8	13.4	12.9
Age group 65 years and older	201.0	176.8	183.6	166.8	154.2
Chronic liver disease and cirrhosis	20.0	17.5	15.0	12.7	12.32
Diabetes mellitus	17.0	16.0	17.0	14.1	13.9
Mental disorders and diseases of the nervous system and sensory organs	22.5	21.7	23.6	30.7	31.5
Age group 0–64 years	12.9	11.2	10.6	10.5	10.4
Age group 65 years and older	100	106.8	129.0	194.5	202.4
External causes					
Injury and poison	49.4	35.1	31.3	28.5	27.7
Transport accidents (especially motor vehicle traffic accidents)	13.5	9.3	6.5	4.0	4.3
Suicide and self-inflicted injury	15.5	11.7	10.5	10.0	9.9
Homicide and intentional injury	1.0	0.8	0.6	0.6	0.5
All causes deaths	847.3	675.7	620.5	565.6	549.4
Age group 0–64 years	285.8	219.0	194.8	178.2	175.2
Age group 65 years and older	5 390.4	4 370.5	4 064.8	3 699.3	3 577.0
Female, all ages	670.1	530.2	495.7	453.4	442.5
Male, all ages	1 119.2	877.0	776.3	697.1	674.1

Source: WHO Regional Office for Europe, 2013.

those older than 65 years. Nevertheless, diseases of the circulatory system still cause approximately 36% of all deaths in Germany. Mortality from malignant neoplasms also decreased, particularly with regard to cervical and breast cancer. Approximately 29% of all deaths in Germany can be attributed to malignant neoplasms. With regard to deaths from external causes, the most notable decline has occurred among those attributable to transport accidents (mainly motor vehicle traffic accidents). An increase can be observed, however, in the age-standardized death rates for mental disorders and diseases of the nervous system and sensory organs (Table 1.4).

In 2011 the standardized all-cause mortality rate for all ages in Germany was somewhat higher than the EU15 average (549.4 vs. 524.0 per 100 000 population), with the relative difference being smaller for younger people than for older people and for men compared with women. Although Germany still lags behind the EU15 average for this indicator, the gap between the two has narrowed by more than 50% since 1990 (where it was 847.3 vs. 780.7 per 100 000 population). Rates of all-cause mortality in Germany are higher than the EU15 average in most age groups, with the exception of infants (3.4 vs. 3.5 per 1000 live births in 2010) (Table 1.3) and children under the age of 5 years (4.6 vs. 4.7 per 1000 live births). The mortality gradient in adult age groups is attributable primarily to cardiovascular diseases (208.7 vs. 161.0 per 100 000), especially ischaemic heart disease. Mortality from neoplasms in Germany ranked slightly below the EU15 average (157.9 vs. 160.8 per 100 000). Although this was true for many types of neoplasm, including trachea, bronchus and lung cancer (33.4 vs. 35.0 per 100 000), it was not the case for cervical cancer (2.6 vs. 2.1 per 100 000) or cancer of the female breast (24.3 vs. 22.9 per 100 000) (WHO Regional Office for Europe, 2013).

Although standardized death rates for motor vehicle traffic accidents in 2011 were also below the EU15 average (4.3 vs. 5.1 per 100 000 population), non-lethal injuries were disproportionately high (406 vs. 293 per 100 000 population). The latter statistic may be attributable to high traffic density, the lack of a general speed limit on motorways, and alcohol consumption. Indeed, in 2003, alcohol consumption was seen as a contributing factor in no less than 29% of all motor vehicle traffic accidents in Germany. Fatal road traffic accidents represent a particular problem among young men in the eastern part of the country (Gericke & Busse, 2010).

1.4.3 Morbidity

Table 1.5 presents selected indicators of morbidity and health-related lifestyle. Most indicators improved considerably between 1990 and 2009/11. Although alcohol consumption (11.7 litres of pure alcohol per capita) in 2009 and the share of regular daily smokers (21.9%) in 2009 were both above the EU15 average, both have declined since 2000. In 2009, Germans ate almost 25% fewer fruits and vegetables (176 kg per capita) than the EU15 average (231 kg per capita) (WHO Regional Office for Europe, 2013).

Dental diseases offer an example of success that can likely be attributed to preventive efforts. Whereas 12-year-old children in Germany had one of the highest index scores (4.1) for decayed, missing and filled teeth among the EU15 countries in 1992, the score fell to 1.2 by the year 2000 and to 0.7 by 2009 (OECD, 2013a).

Another notable improvement was the decline in the incidence of clinically diagnosed acquired immunodeficiency syndrome (AIDS) cases, which fell from its 1990s peak of 2.6 per 100 000 population in 1994 to 0.3 per 100 000 population in 2011. This positive development in the 1990s can be attributed to two factors: first, a concerted prevention strategy, which enabled access to comprehensive information and medical care; and, second, improved medical care and the development of antiretroviral combination therapies. However, the incidence of human immunodeficiency virus (HIV) per 100 000 population increased since 2000, being 2.1 in 2000, 3.6 in 2010 and 3.5 in 2011; a comparison with the EU shows the favourable German situation (EU28 5.7 and EU15 6.5) but further preventive efforts are clearly necessary. The fact that the incidence of AIDS has still decreased is most likely attributable to universal access to specialized medical care, including a range of increasingly potent and tolerable antiretroviral regimens, as well as improved treatment strategies.

According to the latest WHO data, the incidence of cancer was above the EU15 average in 2008 (572.1 vs. 518.1 per 100 000 population); when taken together with the low death rate, this indicates effective treatment (WHO Regional Office for Europe, 2013).

Since 1993 the number of hospital discharges has been increased considerably for most of the considered morbidity groups, such as diseases of the circulatory system (by 32%), malignant neoplasms (29%) and diseases of the digestive system (25%) (Table 1.5).

Table 1.5

Trends in health status and health-related factors for selected indicators, 1990–2011 (selected years)

	1990	2000	2005	2006	2007	2008	2009	2010	2011
Health-related factors									
Average amount of fruits and vegetables available per person per year (kg)	193	206	176	173	174	172	177	–	–
Total fat consumption per person per year (kg)	27.3[a]	29.7	26.9	27	26	–	19.8	–	–
Share of obese person (BMI >30) (%)[b]	–	14[c]	15[d]	18	–	17	–	–	–
Pure alcohol consumption, age 15 years and older (litres per capita)	12.6	12.9	12.2	12.4	12.1	12.0	11.7	–	–
Fatal traffic accidents under the influence of alcohol	1 716	1 022	603	599	565	–	–	–	–
Tobacco consumption per capita (cigarettes per year)	1 831[e]	1 699	1 162	1 135	1 112	1 069	1 058	–	–
Share of regular daily smokers in the population aged 15 years and older (%)	25.1	24.7	23.2	–	–	–	21.9	–	–
New cases of occupational diseases (per 100 000 population)	19.0	33.5	30.0	26.9	25.6	25.0	30.8	29.5	–
Persons injured in work-related accidents (per 100 000 population)	2 107	1 842	1 248	1 272	1 283	1 296	1 190	1 279	–
Deaths in work-related accidents (per 100 000 population)	2.0	1.4	1.1	1.1	1.0	0:9	0.8	0.8	–
Morbidity (per 100 000 population)									
HIV incidence	3.0[f]	2.1	3.0	3.2	3.4	3.5	3.5	3.6	3.5
AIDS incidence	2.0	0.9	0.8	0.8	0.7	0.7	0.7	0.5	0.3
Tuberculosis incidence	18.4	11.0	6.7	6.1	5.6	4.5	4.5	4.3	4.4
Hepatitis A incidence	6.8	3.4	1.5	1.5	1.1	–	1.1	–	–
Hepatitis B incidence	0.0	5.5	1.5	1.4	1.2	1.0	0.9	–	1.0
Cancer incidence	422.9[e]	493.3	528.8	541.1	558.1	572.1	–	–	–
Trachea, bronchus and lung cancer incidence	46.3[e]	55.3	58.2	59.2	59.5	60.3	–	–	–
Alcoholic psychosis incidence	223.2[f]	309.8	342.7	340.3	356.4	374.0	377.9	370.3	–
Hospital discharges[g]									
Circulatory system disease	2 629[f]	3 268	3 310	3 323	3 392	3 463	3 500	–	–
Ischaemic heart disease	799[f]	1 060	977	959	938	916	890	–	–
Cerebrovascular diseases	441[f]	462	497	506	513	526	530	–	–
Respiratory system diseases	1 224[f]	1 223	1 378	1 323	1 396	1 400	1 498	–	–
Malignant neoplasms	1 899[f]	2 296	2 349	2 360	2 413	2 442	2 453	–	–
Digestive system diseases	1 718[f]	1 986	2 062	2 078	2 102	2 156	2 192	–	–
Musculoskeletal system and connective tissue disease	1 172[f]	1 488	2 305	2 358	2 501	2 595	2 671	–	–
Injury and poisoning	1 876[f]	1 969	2 071	2 128	2 128	2 186	2 287	–	–

Sources: WHO Regional Office for Europe, 2013; [b]Statistisches Bundesamt, 2013a.
Notes: [a]Data from 1994, [c]Data from 2002, [d]Data from 2004; [e]Data from 1991, [f]Data from 1993, [g]Data for 2000 included only general hospitals; as of 2005, other hospitals were included, making it inadvisable to compare hospital discharge rates between 2000 and later years, especially for musculoskeletal system and connective tissue disease.

1.4.4 Immunization rates

In 2005, the immunization rate for tetanus among infants was 90.4%, which was slightly below the EU average of 94.2%. By 2009, there had been an enormous increase in the immunization rate for tetanus, up to 99% compared with 96.7% in the EU. Among infants, the immunization rate for hepatitis B in 2011 was 87%, which was higher than the EU average of 85.8%. In 2011, the share of children vaccinated against measles in Germany (96%) was somewhat higher than the EU average of 93.4% (WHO Regional Office for Europe, 2013). Looking more closely at immunization rates for measles, a total of 96.6% of children in 2011 had received their first measles immunization by the time of school entry; there were, however, clear differences in the immunization rates between the western (96.4%) and eastern (97.8%) parts of the country. Although coverage for the second measles immunization was lower than for the first immunization in Germany as a whole in 2011 (92.1%), the difference was greater in the west (91.9%) than in the east (93.2%) (Robert Koch-Institut, 2013). Although immunization coverage among children has improved considerably in recent years, this area of preventive care is still considered by medical experts to be marked by an underprovision of services (SVR, 2010).

As part of a nationwide telephone survey conducted by the Robert Koch Institute (Federal Institute for Communicable and Non-Communicable Diseases), people were asked if they had received an influenza vaccination in winter 2008/9: 30% of the respondents replied in the affirmative. The share of individuals who had received an influenza vaccination increased with advancing age: approximately 56% of those older than 65 years, and 59% of women and 54% of men older than 60 years received a vaccination. There is no significant correlation between age, education and immunization rate. Strong differences can be observed in the regional distribution (Robert Koch-Institut, 2012).

2. Organization and governance

2.1 Overview of the health system

A fundamental facet of the German political system – and the health care system in particular – is the sharing of decision-making powers between the *Länder*, the federal government and legitimized civil society organizations. In health care, governments traditionally delegate competencies to membership-based, self-regulated organizations of payers and providers. Their knowledge and motivation are actually involved in financing and delivering health care covered by statutory insurance schemes.

In Germany, SHI is the major source of financing health care, covering 70 million people or 85% of the population in 2012; the population insured is made up of 35% mandatory members (without pensioners), 18% dependents of mandatory members, 21% pensioners, 2% dependents of pensioners, 5% voluntary members and 4% dependents of voluntary members (Bundesministerium für Gesundheit, 2013a).

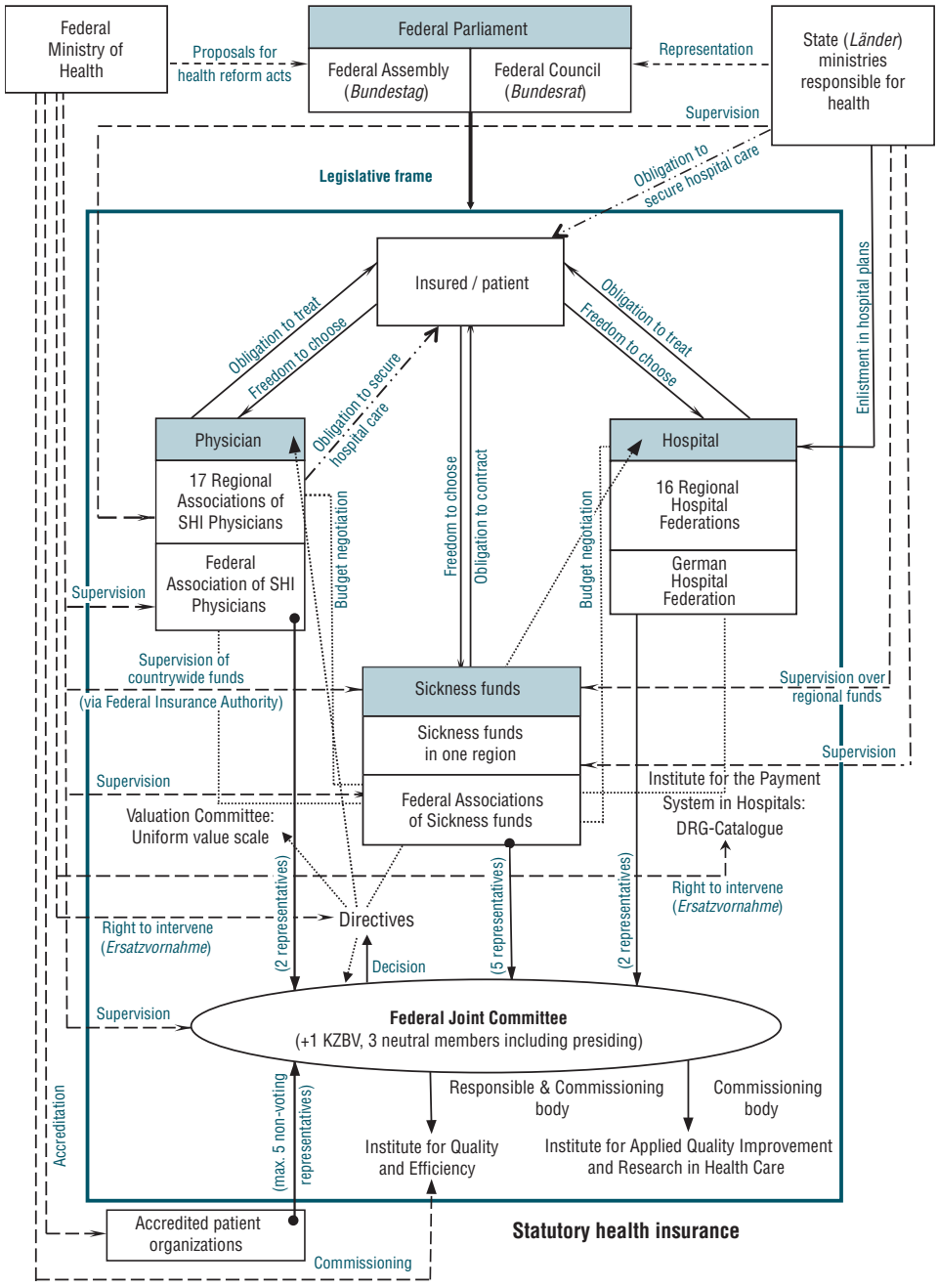
In the SHI scheme, sickness funds, their associations and associations of SHI-affiliated physicians have assumed the status of quasi-public corporations. These corporatist bodies constitute the self-regulated structures that operate the financing and delivery of benefits covered by SHI within the legal framework. They are based on mandatory membership and internal democratic legitimization.

In joint committees of payers (associations of sickness funds) and providers (regional associations of SHI physicians or dentists, or single hospitals), legitimized actors have the duty and right to define benefits, prices and standards (federal level). Corporatist actors on the payers and providers side negotiate horizontal contracts and control and sanction their members (regional level). The vertical implementation of decisions taken by senior levels is combined with a strong horizontal decision-making and contracting among the legitimated actors involved in the various sectors of care.

All major actors in the German health care system and their most important inter-relationships are shown in Fig. 2.1 and described in detail in the following sections.

Fig. 2.1

Organizational relationships of the key actors in the German health care system, 2014



Source: Based on Busse & Riesberg, 2004.
Note: KZBV: Federal Association of SHI Dentists.

Beyond the established decision-making corporatist organizations, other organizations have been given formal rights to contribute to decision-making bodies by consultation (e.g. nurses and allied health professions), participation and proposals (patient organizations) or becoming a deciding and financing partner at the table (PHI for case payments in hospitals). The social courts form a separate group of actors and will be dealt with separately after the federal, state and corporatist levels.

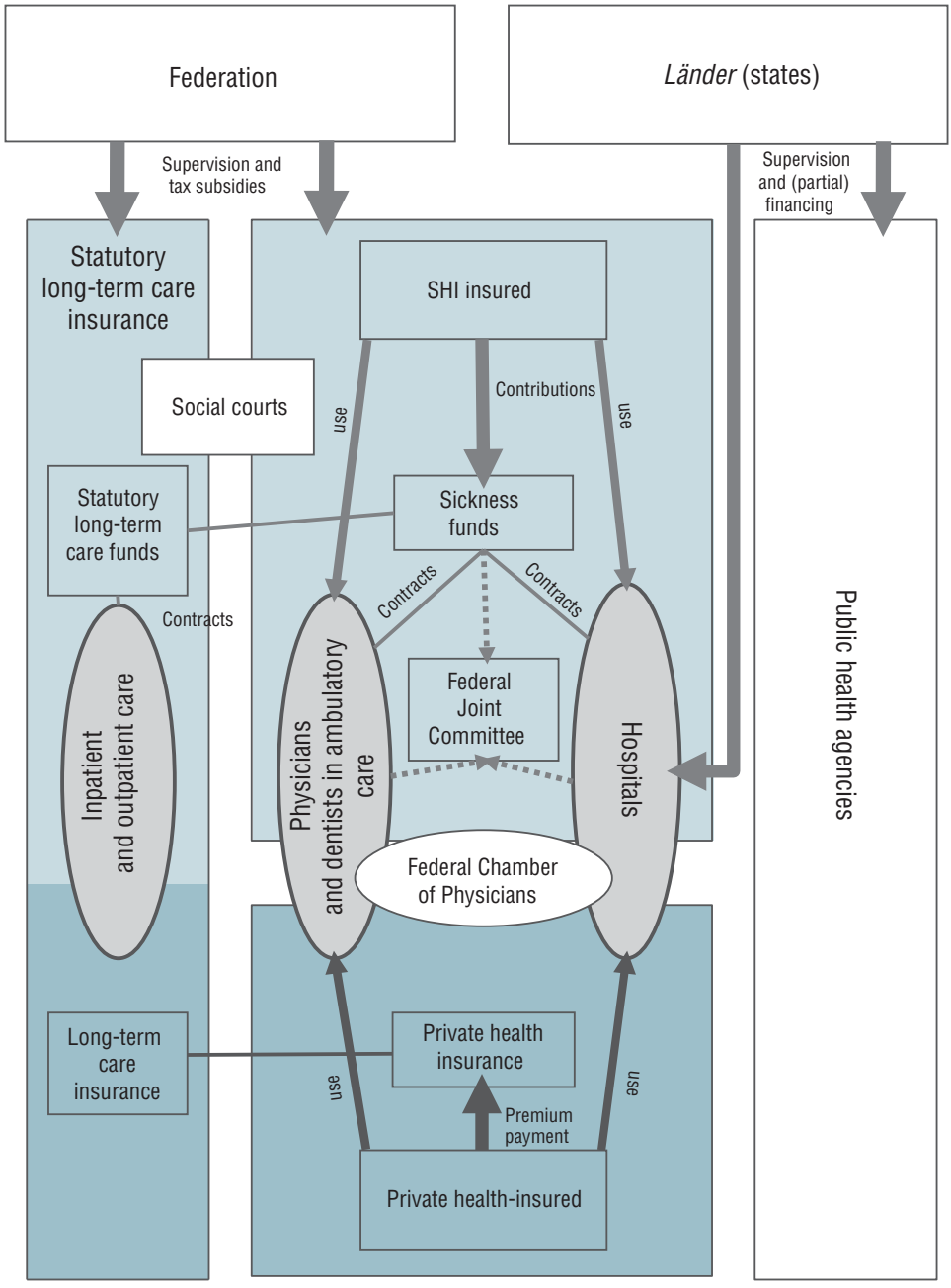
Fig. 2.1 also shows another characteristic of the German health care system, namely the still relatively strict separation between the ambulatory care sector – dominated by office-based, often single-handed physicians and regional associations of SHI physicians – and the hospital sector, which still concentrates on inpatient care. Services provided in the two sectors differ not only in the way they are evaluated (see section 2.7.2) but also how they are paid (see section 3.6).

In addition to these two sectors, the public health sector was considered to be the "third pillar" of the health care system for a long time (on the right side in Fig. 2.2). Meanwhile, because of the institutionalization of long-term care insurance, the long-term care sector is much more relevant and visible (on the left side in Fig 2.2).

A further split in the German health care system runs across these pillars, namely the separation between the SHI (including social long-term care insurance; light grey in Fig. 2.2) and the PHI (including private long-term care insurance; dark grey in Fig. 2.2) – a unique situation in EU countries, at least since the Netherlands combined their two systems in 2006. PHI is mandatory for certain professional groups (e.g. civil servants), while for others it is under certain conditions an alternative to SHI (self-employed and employees above an income threshold). In 2012, around 8.9 million people (10.9% of the population) were covered by substitutive PHI (see section 3.5).

Fig. 2.2 provides a more complete overview of the German health system, including public health, long-term care and PHI. It also shows that SHI and PHI (as well as the two long-term care insurance schemes) use the same providers; that is, hospitals and physicians treat both statutorily as well as privately insured patients, which differs from the situation in many other countries.

Fig. 2.2
Organizational relationship between SHI and PHI, for long-term care as well as the public health service, 2014



2.2 Historical background

The development of the German health care system can be described best by following the main strands of contemporary German history: German industrialization and the introduction of a mandatory health insurance requirement at the national level in 1883; social conflicts and the strengthening of the medical profession during the time of the German Empire up to the founding of the Weimar Republic (1871–1919); the National Socialist period (1933–1945); the immediate post-war period (1945–1949) and the period of division of Germany; and, finally, the period following German reunification in 1990.

2.2.1 Development, continuity and prominence of the SHI

Germany is widely regarded as the first country to have introduced a national system of social and health insurance. A mandatory health insurance requirement was introduced at the national level in 1883 during the chancellorship of Otto von Bismarck and was expanded over the following century to the areas of occupational accidents and disease (1884), old age and disability (1889), unemployment (1927) and long-term care (1994). At the core of this so-called Bismarckian system lie the principles of mandatory membership and non-risk-related contributions kept separate from general tax revenue – principles that, in their essence, have remained largely unchanged to the present day.

The origins of SHI in Germany can be traced back to the mutual-aid societies that emerged from the guilds of the late Middle Ages. During the nineteenth century, the rising class of industrial workers continued the tradition of these societies by setting up voluntary mutual-aid organizations specific to their various occupations. Individual companies and local communities also established mutual-aid schemes, which complemented assistance provided by municipalities and charitable institutions. In 1849, Prussia – the largest of the German *Länder* at the time – made health insurance mandatory for miners and allowed local communities to oblige employers and their employees to pay financial contributions.

The Act on Health Insurance for Blue-collar Workers (*Gesetz betreffend der Krankenversicherung der Arbeiter*), which was signed into law on 15 June 1883, built upon this patchwork of sickness funds, introducing a mandatory health insurance requirement throughout the German Empire for industrial workers, skilled craftsmen and blue-collar workers in other commercial enterprises who

were earning up to a legally defined income ceiling. Employees subject to the mandatory insurance requirement paid two-thirds of the health insurance contributions, whereas employers paid one-third.

At the same time, both employers and employees were obliged to appoint representatives to each sickness fund's administrative board in a manner proportionate to the 2:1 employer:employee contributions. The administrative board was able to set the contribution rate, define optional benefits and address other issues related to sickness fund by-laws within the limits set forth by pertinent legislation. Initially, the sickness funds were free in their choice of health care providers and in determining the nature of contractual relationships with them. The role of licensing and supervising the sickness funds was assigned to the *Länder* governments, whereas the remit of the national government and of the Reichstag was limited to setting the regulatory framework for these otherwise self-governing entities.

According to the 1883 law, insured people were entitled to free ambulatory care, medication, glasses and other medical aids and devices. Alternatively, sickness funds could offer their members coverage of inpatient treatment. With regard to sick pay, insured people were eligible to receive cash benefits equivalent to 50% of the prevailing local wage for up to 13 weeks. Some members were additionally eligible for maternity pay and benefits for surviving dependants. The 1883 law also defined the areas in which individual sickness funds could extend benefits, such as providing coverage to non-working dependants, increasing cash benefits, extending the maximum duration of sick pay to as much as one year, and offering additional benefits in-kind, including what today would be classified as complementary and alternative remedies (Alber, 1992).

In 1884 the Reichstag introduced a statutory insurance scheme for occupational accidents and disease. This mandatory scheme – the first national workers' compensation programme in the world – provided affected employees with curative and rehabilitation care, as well as cash benefits in the event of disability or death. It was (and still is) administered by a range of workers' compensation funds (*Berufsgenossenschaften*), which are essentially risk groups formed by employers according to industry. Like the sickness funds, the workers' compensation funds are non-profit, self-governing, quasi-public corporations with equal representation given to employers and employees on their governing boards. Unlike the sickness funds, however, the schemes have been financed entirely through employer contributions since its inception. In the years that followed, an increasing number of measures to reduce accidents

and occupational disease were introduced by employers, who in doing so hoped to minimize their risk-related contributions to the scheme. The workers' compensation funds played a supervisory role in this regard.

Statutory retirement insurance was introduced in 1889, with contributions split equally between employers and employees. In addition to old-age pensions, disability pensions and occupational rehabilitation, the scheme provided medical rehabilitative services to reduce the risk of permanent disability from disease; priority was, therefore, given to rehabilitation over monetary compensation. It should be noted here that sickness funds and municipalities also financed a range of rehabilitative services, which created a heterogeneous landscape in the area of rehabilitative care. Services were provided primarily within inpatient facilities located in rural areas; these health resorts, which also offered popular spa treatments, became an institutional niche for physical therapy and what would be described today as complementary and alternative medicine. Starting around the beginning of the twentieth century, the quasi-public corporations in charge of administering the scheme began to participate in the provision of long-term treatment to certain groups of individuals with chronic disease, such as tuberculosis. Funding, counselling and supervision, however, increasingly came to be coordinated by consortiums of sickness funds, pension scheme agencies, municipalities and charity organizations.

During the 1880s, many workers boycotted the three major types of sickness fund (i.e. local, occupation-based, and company-based), which had come to be known as "primary sickness funds", or *Primärkassen*. In their place, workers signed up with so-called substitute sickness funds (*Hilfskassen*, later known as *Ersatzkassen*). The substitute sickness funds were also self-governing entities but were run entirely by worker representatives. Workers subject to the mandatory health insurance requirement were able to avoid automatic allocation to a primary sickness fund by signing up with a substitute sickness fund as long as the range of services it offered was at least equivalent to that offered by the primary sickness funds in a particular region. Importantly, substitute sickness funds were not obliged to offer benefits in-kind but could provide instead sick pay equivalent to 75% of the prevailing local wage. When this option was eliminated in 1893, however, the attractiveness and number of substitute sickness funds declined substantially. With the expiration of the Anti-Socialist Laws (*Sozialistengesetze*) in 1890, the Social Democrats and trade unions sought broad participation in the administrative boards of the primary sickness funds. In an attempt to halt the growing politicization of white-collar workers and to drive a wedge between them and blue-collar workers, the national government introduced a separate group of sickness funds for white-collar workers in

1901. Moreover, white-collar workers were granted greater freedom of choice among the sickness funds, and the existing substitute funds increasingly catered almost exclusively to this group (see section 3.3). Although contributions to the substitute sickness funds were, by then, split between employers and employees, this group of sickness funds has, for the most part, maintained the historical pattern of 100% employee representation on its administrative boards. The 1911 Imperial Insurance Regulation (*Reichsversicherungsordnung*) introduced a common legal framework for the different pillars of the social insurance system. The sections covering health insurance remained in force, with some modifications, until 1988; those regarding pregnancy, childbirth and maternity benefits still remain in effect today (see section 3.3).

Table 2.1 shows that over four decades, SHI was gradually extended from 10% of the population in 1885 to 51% of the population in 1925. Later, in West Germany, this percentage rose to 88%, whereas in East Germany virtually 100% of the population was covered from 1949 onwards. East Germany's system of national health insurance was abandoned after reunification in 1990 in favour of the Bismarckian system still in place in West Germany. The breadth of coverage of the Bismarckian system has been extended since 1883 either by increasing the income ceiling for mandatory membership or by adding new occupational groups to the sickness fund system, such as white-collar workers from the transport and commercial sectors (1901), domestic servants, agricultural and forestry workers (1914) and farmers (1972). Germany has also managed to integrate into the statutory scheme certain social groups that are covered by public agencies in some other European countries, such as the unemployed, non-working dependants, people incapable of gainful employment, pensioners, students and the disabled.

Contributions and expenditure have increased substantially since the inception of the German system of SHI almost 125 years ago (Table 2.1). This can be attributed, in part, to the extension of the SHI benefits package pursuant to legislative acts or decisions taken by the corporatist institutions within the system of joint self-government. After a period of initial hesitation, an increasing number of sickness funds began to offer benefits above and beyond those contained in the benefits package, such as providing coverage to non-working dependants. Between 1893 and 1930, sickness funds had the power to levy, in addition to the standard contribution, a uniform fee on all their members for such optional benefits. By the time an entitlement to ambulatory care for non-working dependants was enshrined in law in 1930, practically all sickness funds already offered coverage for this group of individuals. The

Table 2.1
Trends in SHI, 1885–2010

	German Empire				West Germany				Germany			
	1885	**1913**	**1925**	**1938**	**1950**	**1960**	**1987**	**1997**	**2000**	**2005**	**2009**	**2010**
Statutory sickness funds												
No. sickness funds[a]	18 776	21 342	7 777	4 625	1 992	2 028	1 182	554[b]	420[b]	267[b]	202	165
Contributing members per sickness fund (thousands)	0.2	0.6	2.3	4.8	10.1	13.4	30.9	91.8[c]	120.0[d]	188.8[d]	254.2[d]	311.4[d]
Membership												
Insured individuals (% of population)	10	35	51	–	–	83	88	88	86	85	85[d]	85[d]
Sickness fund members (% of population)	9	20	29	34	40	49	–	61[c]	62[d]	61[d]	62[d]	63[d]
Mandatory members (% of working population)	22	44	57	66	62	67	76	–	73	79[e]	79	68
Contributions												
Share (%) of gross income[f]	2.0	3.0	6.0	–	6.0	8.4	12.6	13.6	13.6	14.6	15.5	15.5
Income ceiling for mandatory membership (multiple of average per capita gross income[c])	3.1	2.1	1.6	1.9	1.5	1.3	1.1	1.3	–	1.2	1.2	1.2
Ratio of contributions, employees:employers	2:1	2:1	2:1	2:1	2:1	1:1	1:1	1:1	1:1	1.13:1[g]	1.12:1[g]	1.12:1[g]
SHI expenditure												
% of GDP[h]	0.2	0.7	1.7	1.9	2.6	3.2	6.2	6.7	6.0	6.1	6.7	7.0
Ratio cash benefits:services in kind	1.7:1	–	1:1	–	–	1:4	1:8	1:12	1:14[i]	1:20[i]	1:20[i]	1:19

Sources: Based on data from Alber, 1992; Statistisches Bundesamt, 2010a, 2013e; [b]GKV-Spitzenverband, 2010; [c]Kassenärztliche Bundesvereinigung, 2009; [d]Bundesministerium für Gesundheit, 2014; [e]Bundesministerium für Gesundheit, 2009; [f]Bundesministerium für Gesundheit, 2010a.
Notes: [a]In East Germany two sickness funds insured almost 100% of the population; [f]The percentages from 2005 onwards include the 0.9% additional contribution paid as of that year only by employees pursuant to § 241a SGB V; [g]The ratio changes starting in 2005 because of the additional contribution of 0.9% paid as of that year only by employees (while the remainder is shared equally between employer and employee); [h]Including cash benefits such as sick pay, maternity pay and funeral allowance.

continual growth of optional benefits also fuelled the expansion of the benefits package over time, as did many of the rulings reached by Germany's system of social courts. At the time of its inception, SHI aimed primarily at reducing the risk of impoverishment from illness and its complications. Expenditure on benefits in-kind represented only a small percentage of total sickness fund expenditure (Table 2.1). In the decades that followed, however, the emphasis shifted increasingly towards the financing of measures related to the diagnosis and treatment of disease, including the use of pharmaceuticals, medical aids and the services of professional health care providers. The trend was accelerated even further after 1969, when legislation was introduced requiring West German employers, rather than the sickness funds, to cover the first six weeks of sick pay (Table 2.1).

When considering the growth in the expenditure of the sickness funds, it should be kept in mind that the pay-as-you-go principle upon which the system of SHI in Germany is based has provided a sound financial footing for the system through two World Wars, the hyperinflation of 1923, the Great Depression of 1929, the introduction of a new currency (the German mark) in 1948 and a number of recessions of varying severity.

2.2.2 Physicians and their collective victories over the sickness funds and other professions

The shift from cash payments to benefits in-kind (Table 2.1) corresponded with growth in the number of health care professionals (Table 2.2). This trend reflected a broader move in nineteenth century industrial society towards increasing professionalism and division of labour. In the process, the rising class of professional physicians proffered health care services as a means of addressing social and medical issues, and they did so with the approval of most sections of society. However, these developments – what one might describe as the "socialization" of the medical profession – were accompanied by long-term conflicts over power and income.

In particular, the conflicts between the sickness funds and office-based physicians have been key in shaping Germany's current health care system. Indeed, office-based physicians have played a dominant role not only in the ambulatory sector but also in the health care sector as a whole from the 1890s up to the present day.

The 1883 Act on Health Insurance for Blue-Collar Workers addressed neither the relationship between the sickness funds and physicians nor the qualifications of health care professionals, leaving both matters to the discretion

Table 2.2
Health care personnel and hospital capacities, 1885–2010

	Number of inhabitants per					Total population (millions)
	Physician	Dentist	Pharmacist	Nurse	Hospital bed	
1885	3 004	86 752	7 483	3 260	324	46.7
1900	2 047	9 529	–	–	219	56.0
1909	2 085	5 682	6 414	926	158	63.7
1927[a]	1 447	2 690	5 982	712	120	63.3
1938	1 371	1 924	5 789	517	107	68.4
1952[b]	700	1 706	4 182	476	89	48.7
1960[b]	699	1 705	3 514	527	95	55.4
1975[b]	521	1 946	2 415	388	85	61.8
1987[b]	356	1 573	1 802	292	91	61.1
1991	329	1 450	1 922	–	99	80.3
1997	290	1 324	1 520	118	107	82.1
2002	274	1 289	1 528	117	113	82.5
2007	261	1 245	1 417	112	121	82.2
2008	256	1 243	1 390	106	122	82.0
2009	251	1 221	1 387	103	121	81.8
2010	245	1 202	1 363	101	121	81.7

Sources: Based on Alber, 1992; Federal Health Monitoring System of the Federal Statistical Office.
Notes: [a]1927 or 1928; [b]Applies to West Germany only.

of the sickness funds. Initially, physicians took little notice of this aspect of the regulation, but starting in the 1890s they began to push for greater autonomy and higher income through lobbying and strikes. This change of approach can be attributed to the increasing number of patients with insurance coverage, restrictions on insured individuals' access to physicians, the dependence of salaried physicians on the worker-dominated sickness funds (which, among other things, led to a decline in the social status of this group of physicians), and the doubling of the physician-to-population ratio between 1887 and 1927. After 1900, the medical profession succeeded through its campaign at the national level in convincing various rival groups of physicians to make common demands despite internal divisions (in particular between SHI-accredited physicians, who were dependent on the sickness funds, and non-SHI-accredited physicians, who were not). The most successful interest group was the Leipzig Union (*Leipziger Verband*) which was established in 1900. Later known as the Hartmann Union (after its founder, Hermann Hartmann; *Hartmannbund*), its membership grew from 21 physicians to nearly 75% of all German physicians in 1910. The demands of the Leipzig Union were, to a certain extent, contradictory. On the one hand, it used the slogan "Free choice of physicians for patients – not for the sickness funds" to pressure for unrestricted access to patients covered by

SHI. On the other hand, it attempted to limit the role of the sickness funds as a way to gain more private patients – or, from the viewpoint of SHI-accredited physicians, to share revenues from the sickness funds with as few physicians as possible. Except for the short phase of true fee-for-service payments during the 1960s and 1970s, this contradiction has remained part of German health politics to the present day.

When the 1911 Imperial Insurance Regulation was passed without addressing any of these demands, physicians threatened to go on strike shortly before the law was to take effect in 1914. In December 1913, the government intervened for the first time in the conflict between sickness funds and physicians. The resulting Berlin Convention stipulated that representatives of the physicians and sickness funds were to form joint commissions, thus channelling the conflict into constructive negotiations and introducing the beginnings of today's system of joint self-government within the SHI scheme. Moreover, the ratio of physicians to insured individuals was mandated at a minimum of 1:1350, to be put into practice by joint registration committees. Contracts with physicians had to be agreed upon collectively by all of the sickness funds (Alber, 1992).

After the Berlin Convention expired at the height of the hyperinflation in 1923, office-based physicians went on a series of strikes. Some sickness funds responded by setting up their own outpatient departments and polyclinics, which although few in number were perceived by the striking medical professionals as an alarming throwback to nineteenth century conditions and a socialization of medical services. Office-based physicians also felt threatened by the broad range of preventive, health education and social care services being offered by local communities and welfare organizations (Weindling, 1989). The government responded to the strikes by creating a joint body responsible for decisions on benefits and the delivery of ambulatory care. Known as the Imperial Committee of Physicians and Sickness Funds, the body exists today in the form of the Federal Joint Committee.

The first cost-sharing measure in the SHI system was a 10–20% co-payment for pharmaceuticals and medical aids, introduced in 1923 along with an exemption for unemployed individuals. In 1930, the percentage-based co-payment was replaced by a fixed co-payment per prescription and an additional co-payment for ambulatory care consultations. These changes were part of a number of emergency decrees issued during the financial crisis at the end of the Weimar Republic to respond to rising expenditure and substantial reductions in sickness fund revenue due to high unemployment. The emergency decrees also established an SHI Medical Review Board (*Medizinischer Dienst der Krankenversicherung*), formed by the sickness funds, to supervise the

provision of services by contracted physicians. Moreover, a ratio of 1 physician per 600 insured individuals was also introduced. In return, office-based physicians were granted in 1931 a legal monopoly over ambulatory health care, something for which they had fought for decades. The regional associations of SHI physicians were granted the right to negotiate global contracts with the sickness funds and to distribute the resulting payments among their members. This represented a major collective victory for office-based physicians over sickness funds, hospital-based physicians, medical officers in community health and other health care professionals.

In Prussia, non-physician health professionals, such as midwives and nurses, had already been assigned a role subordinate to that of physicians in 1852 by royal edict. Their autonomy was restricted even further in 1931, however, by a prohibition from contracting directly with the sickness funds. The monopoly held by office-based physicians over ambulatory care also meant that it was illegal for community health departments to provide curative care, for sickness funds to buy or distribute pharmaceuticals, and for most hospitals to treat outpatients (Alber, 1992).

In addition to marginalizing community health services, the monopoly held by office-based physicians over ambulatory care contributed substantially to the divide between the ambulatory and hospital sectors. This divide was reinforced by differences in responsibilities for finances and planning, with *Länder* authorities playing a more prominent role in the hospital sector than within the system of joint self-government (see section 5.4).

Another factor contributing to the divide between the ambulatory and hospital sectors was the early professionalization and specialization of medicine. Starting in the 1880s, German research facilities came to play a leading role in the world of empirical scientific research. At the turn of the twentieth century, most medical schools in Germany had chairs for all major clinical and theoretical disciplines – the study of which became an obligatory part of the curriculum for medical students by 1920. As is still the case today, medical and specialist training was science oriented, focused on topics in secondary and tertiary care and took place primarily in the hospital setting (see section 4.2.3).

The willingness of the sickness funds to finance care delivered by medical specialists in both the ambulatory and hospital sector also contributed to this pronounced process of specialization. Whereas many early specialists divided their time between hospitals and private practice, by 1920 most hospital-based physicians were working on a full-time basis, as were their office-based counterparts. Although this development carried with it considerable financial

opportunities, it also exacerbated rivalries between the various medical disciplines, especially between specialists and general practitioners (GPs), as well as between salaried physicians in hospitals and office-based physicians in the ambulatory sector. These conflicts have continued to the present day.

2.2.3 Rationing and structural continuity during the National Socialist period

During the period of National Socialism (1933–1945), the fundamental structures of the social insurance system, including those related to health care financing and delivery, remained unchanged. Coverage by SHI was extended to pensioners in 1941, and sickness funds were legally obliged to provide coverage for hospital care not only to members but also to their dependants in 1936 – a benefit that most funds were already providing by that point on a voluntary basis (Alber, 1992).

Despite this structural continuity, the principles of the social insurance system were grossly violated. Access to medical and cash benefits from SHI, accident and retirement insurance was restricted or denied to the Jewish population and other stigmatized minorities. This was part and parcel of the Nazis' racist policies, which began with the exclusion of these groups and others from all social life and ended with detention in concentration camps, torture, mass murder and genocide. Forced migrant labourers were obliged to contribute to the SHI system without any guarantee of receiving benefits, and the services they did receive were often substandard. Moreover, members of the medical profession were instrumental in legitimizing social selection, cruelty and murder (Weindling, 1989).

At the same time, the organization of the health care sector and the balance of power among the main actors were changed during the Nazi regime. The sickness funds (1934), community health departments (1935), as well as professional associations, medical chambers and charitable institutions dealing with public welfare or health education (1933–1935) were each centralized and submitted to a director nominated by the Nazi Party. Members of the corporatist institutions within the system of joint self-government were chosen by the Nazi Party rather than being elected, and the participation of employers and employees was limited to service on an advisory council.

In 1933, the majority of socialist and Jewish employees working in the administration of the sickness funds were expelled by law. In 1933 alone, one-quarter of the employees working for sickness funds and one-third of physicians working for public health agencies were forced to leave their

positions. Subsequent legislation prohibited Jewish physicians from treating patients covered by SHI (1933) and, later, all non-Jewish patients (1937). Finally, in 1938, Jewish physicians were banned from practising medicine altogether. As a result, 12% of physicians in Germany (and 60% of physicians practising in Berlin) were prohibited from pursuing their vocation, which greatly restricted access to health care, especially among Jewish patients. Non-Jewish medical professionals were the occupational group with largest proportion of members in the Nazi Party, and the majority of them welcomed the exclusion of Jewish doctors from medical practice.

As the influence of the sickness funds was weakened, that of office-based physicians was bolstered yet further. The regional associations of SHI physicians (1931/32) and the German Association of SHI Physicians (1934) were established as corporations under public law, and were entrusted with negotiating collective contracts with the sickness funds, ensuring the availability of emergency services and supervising individual physicians contracted by the sickness funds. These associations were also granted the right to decide on the registration of office-based physicians without negotiating with the sickness funds. In return, these physicians were forbidden to strike. Although practitioners of what today would be referred to as complementary and alternative medicine were supported ideologically during the early years of the Nazi regime, their status as private practitioners was restricted in 1939, when public health officials were given authority over the registration and supervision of this occupational group.

2.2.4 Immediately after the end of the Second World War

When the National Socialist period came to an end on 8 May 1945, health care and virtually all other sectors of German society were divided into two separate systems, each with its own economic, administrative, political and social structures. The three zones occupied by the Western Allies were to become the Federal Republic of Germany (commonly known as West Germany), whereas the Soviet occupation zone was to become the German Democratic Republic (commonly known as East Germany). After 1949, both countries operated independently of one another until peaceful demonstrations by the people of East Germany ultimately led to German reunification in 1990.

During the Nuremberg Trials, a number of German physicians were sentenced to death for committing war crimes and crimes against humanity, including murder, mutilation, torture, brutality and other inhuman acts, often as part of pseudo-medical experiments conducted at concentration camps or medical or social institutions.

During the immediate post-war period, health care in Germany was characterized by ad hoc measures aimed at preventing epidemics and allocating scarce medical resources. The Western Allies relied upon and supported existing structures in health care and administration. However, whereas the British administered health affairs in a more centralized fashion, the French strove to limit the centralization of authority within their zone and in West Germany as a whole. The Americans, in turn, pursued primarily ad hoc policies, attempted unsuccessfully to establish a school of public health and prevented office-based physicians from re-establishing their monopoly over ambulatory care until the 1950s.

2.2.5 The continuation of the social insurance system in West Germany

In an attempt to increase their bargaining power over the monopoly already held by ambulatory physicians in various regions, the general regional sickness funds (*Allgemeine Ortskrankenkassen* (AOK)), labour unions and the Social Democratic Party campaigned for a single social insurance fund that would cover health, old age and unemployment. The Christian Democratic Party, however, won the first elections in West Germany in 1949. By 1955, and with the support of employers, they had restored on a nationwide basis the health care system that had been in place at the end of the Weimar Republic. SHI contributions were now shared equally between employers and employees, as was the number of seats on the administrative board of each sickness fund (with the exception of the substitute funds). Although the statutory insurance scheme for occupational accidents and disability continued to be financed entirely by employers, trade unions were granted the right to choose 50% of the seats on the administrative boards of the workers' compensation funds. The health care system in West Berlin was organized somewhat differently because of the influence of the Allies (e.g. residents were covered by a single sickness fund until the early 1960s).

The system of joint self-government developed primarily into a field for corporatist representatives, with relatively little transparency or democratic participation for the insured. Office-based physicians were again granted a monopoly over ambulatory care, along with the corresponding rights, powers and duties that this entailed. In addition, the mandated ratio of physicians to insured individuals was increased to 1:500 and then abolished completely in 1960 in favour of self-regulation after the Federal Constitutional Court declared occupational freedom to be a constitutional right.

The period between 1955 and 1965 was characterized by a struggle over cost-reducing structural reforms, which were ultimately undermined by a coalition of physicians, sickness funds, media and the medical device industry. Health care reform proposals failed in 1960 and in 1964; both of which contained provisions for user charges far exceeding those that would later be introduced during the cost-containment period beginning in 1977. From 1965 to 1975, costs for health care increased substantially as a result of rising prices and wages (caused in part by a shift from religious to secular staff), demographic trends, the use of additional cost-intensive technologies and the modernization and expansion of health care services and infrastructure. Office-based physicians developed an increasingly sophisticated system of fee-for-service remuneration. New services for secondary prevention and some areas of occupational medicine were transferred to the remit of office-based physicians, which cut costs for public health services but also diminished their role in the health care system.

The 1970s saw the reform of social, psychiatric and nursing services, which ever since have been delivered primarily by private non-profit organizations at the community level (see section 5.8). In addition, new population groups were brought under the roof of SHI, including farmers, students and the disabled. In 1972, the roles of the federal government, the *Länder* and the sickness funds in financing hospitals were clarified and legally anchored in the so-called dual financing system. According to this system, the *Länder* are responsible for capital investment, whereas the sickness funds pay for operating costs, including those associated with salaries, the provision of services, and (since the late 1990s) building maintenance and repair. The growth of the health care sector and of health care expenditure was part of a deliberate political strategy, the aim of which was to overcome infrastructural deficiencies resulting from wartime destruction and the insufficient financing of hospital investments in the immediate post-war period.

After 1975, in the wake of the 1973 oil crisis, health expenditure continued to grow and led to criticism that health care providers were overly concerned with status and financial gain. The era of cost-containment in the SHI system began in 1977 with the introduction of the Health Insurance Cost-containment Act (*Krankenversicherungskostendämpfungsgesetz*), which ended the period of rapid growth in health care expenditure, especially in the hospital sector.

Since 1977, the main goal of cost-containment measures has been to impel sickness funds and health care providers to pursue stable SHI contribution rates, which requires pegging the level of health care expenditure to revenue

from SHI contributions. Ensuring compliance with these measures was one of the main tasks of the Advisory Council for "Concerted Action in Health Care" (*Sachverständigenrat für die Konzertierte Aktion im Gesundheitswesen*) Round Table Committee, established in the 1980s by the governing coalition of the Christian Democratic Union/Christian Social Union and the Free Democratic Party (in power from 1982 to 1998) as a way to bring together rival corporatist institutions in the health care sector. The Committee was expanded over the years to include 75 representatives, but because of continuing conflicts it was unable to meet political expectations. It last met in 1997 and was ultimately abolished in 2003 by the then governing coalition of the Social Democratic Party and Alliance 90/The Greens (in power from 1998 to 2005), which had decided to consult the various stakeholders in a series of smaller round-table-style meetings instead.

The basic principle behind German-style cost-containment was thus to base expenditure policy on revenue as a way of guaranteeing stable contribution rates. This was an important objective in a time of economic restructuring and growing international competition. Because SHI contributions in Germany are paid jointly by employers and employees, increases in contribution rates have generally been seen as a question of international competitiveness. The drive for cost-containment, which intensified after German reunification, was realized at the federal level through a series of legislative measures designed to control expenditure, shift costs or create incentives to increase technical and allocative efficiency (see Chapter 6).

2.2.6 The national health service in the German Democratic Republic

The Soviets played a more interventionist role in their occupation zone, which became the German Democratic Republic – otherwise known as East Germany – in 1949. They took an authoritarian approach to controlling infectious diseases and, over the protests of most physicians, gradually introduced a centralized state-operated health care system. Sixty health experts were appointed to assist in designing the new system, which was influenced by the public health traditions of Weimar-era community health care services and by the health care systems in the United Kingdom, Sweden and the Soviet Union.

The resulting health care system in East Germany differed from its Soviet counterpart by preserving the structural division between ambulatory and hospital services. In everyday practice, however, both sectors often collaborated and were frequently located on the same premises. In addition, although the

principle of social insurance – with employers and employees sharing the cost of insurance contributions – was maintained *de jure*, insurance administration was concentrated in only two large sickness funds: one for workers (89%) and one for other occupational groups, members of agricultural cooperatives, artists and the self-employed (11%). The *de facto* role of the social insurance system was substantially reduced.

As in most socialist countries, the majority of health care personnel in East Germany were employed at facilities owned by the state. Although some physicians provided ambulatory care in solo practices, most worked at community-based or company-based polyclinics staffed by a range of medical specialists and other health care professionals. Unlike many of the other former socialist countries, not all health care institutions in East Germany were formally nationalized. Independent hospitals continued to exist, albeit under increasingly difficult circumstances. Indeed, between 1960 and 1989, the number of non-profit hospitals decreased from 88 to 75, and the number of private hospitals from 55 to 2. Nevertheless, in 1989, approximately 7% of all hospital beds were still not state owned and some physicians had remained in private practice (Busse & Nolte, 2004).

Local communities provided preventive services, including health education, maternity and child health care, and specialist care for people with chronic diseases such as diabetes or psychiatric disorders. These health services were complemented by comprehensive social support from the East German State in areas such as housing and day care – all part of policies intended to encourage growth of the population and active workforce. In this manner, East Germany created what the political left in West Germany and in many other western countries considered, at least until the 1960s, to be a model health care system. Because of insufficient financing and investment, however, as well as shortages of skilled personnel and modern technologies, the East German health care system began to lag behind Western standards in the 1970s, leading to a visible worsening of care in the second half of the 1980s. The number of hospital admissions per capita in East Germany was approximately 25% lower than in West Germany in the 1980s, and yet the bed occupancy rate in East Germany fell below 75% during that same decade.

This lack of modern medical care has been linked to trends in population health. Available data suggest, for example, that higher infant mortality from congenital anomalies of the heart and cardiovascular diseases in the 1980s in East Germany was associated with shortages in surgical capacity (Bundesministerium für Gesundheit, 1993). Other data point to undertreatment

or less effective treatment of hypertension, as the prevalence of treated but uncontrolled hypertension was found to be higher in East than in West Germany (Heinemann & Greiser, 1993). Elderly patients with stroke in East Germany also appear to have received deficient medical care, as reflected in a high case-fatality rate among those over 65 (Eisenblätter et al., 1994). Another study reported a hospital case-fatality rate of approximately 20% after proximal femoral fractures in East Germany in 1989 (Wildner et al., 1998), which was considerably higher than in West Germany. Although other factors must also be taken into account, such as a higher burden of disease in the East German population, these findings point to the possible effect of differences in medical care on population health and the widening mortality gap between the two Germanys. This gap began to develop in the mid-1970s after decades of mostly parallel improvements in life expectancy and even a slight advantage for men in East Germany during the 1960s and early 1970s (see section 1.4). In November 1989, shortly after a National Health Conference resolved to introduce fundamental health care reforms along with an increase in investment, the Berlin Wall fell.

2.2.7 Transferring the West German health care system to former East Germany

In 1990, the new East German transitional government and the government of West Germany signed a Unification Treaty, which together with the Treaty on the Final Settlement With Respect to Germany (Two Plus Four Agreement) formally concluded the accession of East Germany, with its 17 million inhabitants, to its western counterpart on 3 October 1990. As part of this process of accession, former East Germany was integrated not only into the political and economic system of West Germany, which had had its critics on both sides of the political divide, but also into the West German system of social security and health care, which was generally regarded in a more favourable light. Ideas of pursuing a so-called third way (e.g. introducing a single sickness fund covering all of former East Germany) were abandoned for practical, political and legal reasons, as well as the lobbying efforts of various stakeholders.

Instead, only minor compromises were made concerning the financing and delivery of health care services. For example, the Unification Treaty granted polyclinics from the former German Democratic Republic a five-year grace period, during which their ultimate fate was negotiated jointly by the regional associations of SHI physicians and the sickness funds. In particular, the decision to use per capita payments instead of the fee-for-service reimbursement received by office-based physicians resulted in bleak career prospects for health care

professionals working at these facilities. As a result, a full 91% of physicians who had previously worked as public employees in different ambulatory settings were running their own private practices by 1992. Only a few polyclinics, located mainly in Berlin and Brandenburg, managed to continue operating as specialized units or as so-called "health centres". Interestingly, since 2004, a variant of this interdisciplinary kind of health care delivery has been promoted for the whole of Germany under the name of "medical treatment centres" (*Medizinische Versorgungszentren*); these may take a variety of legal forms but have to be run by physicians and may be staffed by salaried physicians and other health care personnel.

The sickness funds in the western part of Germany expanded quickly into former East Germany, where there was a lower percentage of privately insured citizens (e.g. 2% versus 10% in 1993) and a higher proportion of individuals insured by AOKs (e.g. 62% versus 43% in 1991). The federal government supported the renewal of infrastructure in the eastern part of the country with an immediate aid package of several billion euros directed mainly at hospitals and nursing homes.

2.2.8 Health care reforms in reunified Germany

The extraordinary challenges of German reunification increased pressure on the system, accelerating the speed of health care reform in the 1990s and particularly after the turn of the millennium (see Chapter 6). The main thrust of reform legislation since reunification has been to control expenditure and enhance technical efficiency by fostering competition, albeit strongly regulated, while avoiding adverse effects on equity or quality. As such, rationalization was given priority over rationing, and few items were removed from the SHI benefits package. Indeed, a substantial number of new drugs and technologies were added to the benefits package during this period, and the service profile was shifted towards long-term and palliative care, as well as towards prevention.

Health policy under the Christian Democratic–Liberal Government (1982–1998) can be divided into two main periods: First, the health care reforms from 1988 through the mid-1990s were characterized by increased government intervention to rein in expenditure in all sectors of care. At the same time, pro-competition regulations among payers and in the hospital sector were introduced, buffered by measures to avoid adverse effects on equity and quality. In addition, new benefits were added in order to more adequately meet the health needs of the population and to provide care more efficiently. Access to long-term care services was expanded substantially by introducing a

statutory long-term care insurance scheme as a new fifth pillar to the German social insurance system (see section 5.8). The three reform acts passed in 1996 and 1997 emphasized the revenue side of the equation by raising out-of-pocket payments. Preventive and rehabilitative benefits were reduced, and dental implant services for people born after 1978 were removed from the SHI benefits package. At the same time, budgets that had been imposed in the pharmaceutical, ambulatory care and inpatient care sectors were relaxed.

Health policy under the Social Democratic/Green Coalition Government (1998–2005) can be divided into three short phases: First, between 1998 and 2000 the majority of regulations enacted in 1996 and 1997 were revoked and replaced by stricter cost-containment measures in all sectors. In addition, the SHI benefits package was expanded to cover services such as sociotherapy and patient information, and the education of health professionals was modernized. Second, between 2000 and 2003, a range of minor legislative acts were introduced following a change of ministers and a series of round-table consultations with a broad range of stakeholders. Pharmaceutical spending caps were lifted and replaced by benchmark agreements with the regional associations of SHI physicians and with sickness funds, the regional associations reserving the right to perform efficiency audits through claims review committees. Moreover, various actors in the SHI system were required to provide physicians with timely information on the cost–effectiveness of pharmaceuticals to encourage judicious prescribing behaviour. In addition, DRGs were decisively introduced as part of a new inpatient prospective payment system (see section 3.6.1), and the system of risk adjustment in place since 1994 was reformed (see section 3.3.3). Third, with the introduction of the SHI Modernization Act (*GKV-Modernisierungsgesetz*) of 2004, many of these reforms were carried a step further or their provisions were made obligatory for the sickness funds. Innovative models for delivering care were placed on a firm basis, diversifying the landscape of health care delivery. At the same time, a policy reversal took place, with costs being shifted to private households through out-of-pocket payments and the exclusion of benefits, which involved reintroducing some of the reform measures from 1996 and 1997 (see section 6.1.1).

After the September 2005 elections, the Christian Democratic Union and Social Democratic Party found themselves with little option but to enter a so-called grand coalition. Although both camps agreed that a fundamental reform of the revenue side of the system was necessary, they had advocated two very different approaches in their respective election campaigns. The Social Democrats had proposed a so-called *Bürgerversicherung* (literally,

"citizen's insurance"), which would have (1) expanded the mandatory health insurance requirement to additional population groups, (2) eliminated the upper wage threshold beyond which employees can currently opt out of the SHI system (the *Versicherungspflichtgrenze*), (3) increased the SHI wage base (i.e. the maximum earned gross wages on which SHI is collected; known in German as the *Beitragsbemessungsgrenze*), and (4) extended the SHI financing base to include other forms of income such as rents and interest. In contrast, the Christian Democrats advocated a community-rated per capita premium (a so-called *Kopfpauschale*) combined with a fixed employer contribution based on an employee's gross wages. People unable to afford the premium would receive subsidies financed through general taxation (Busse & Riesberg, 2004 and section 6.1.2). Of the reform measures enacted during the tenure of the following grand coalition (2005–2009; the first Merkel Cabinet), the Act to Strengthen Competition in SHI (*GKV-Wettbewerbstärkungsgesetz*) of 2007 was by far the most controversial. It represented an attempt to merge important aspects of these two proposals. The reform was fully implemented in January 2009. It contained some structural changes: (1) the introduction of a Central Reallocation Pool ("Health Fund"); (2) insurance contributions to this Pool according to a universal contribution rate; (3) allocation of funds among the sickness funds according to a risk structure compensation scheme based on morbidity criteria; (4) individual sickness funds being able to match allocations and expenditure by either charging a supplementary community-rated premium from their insured or paying them back a certain amount; (5) universal insurance coverage for all residents (still separated into SHI and PHI); (6) the legal obligation for private health insurers to offer a new "basic tariff"; (7) the reorganization of the associations of sickness funds; and (8) the reform of provider payments for ambulatory care (for details see relevant chapters and section 6.1.4).

Between 2009 and 2013, a Christian Democratic–Liberal Government was in power (the second Merkel Cabinet). The SHI Financing Act (*GKV-Finanzierungsgesetz*) and the Pharmaceutical Market Reform Act (*Arzneimittelmarktneuordnungsgesetz*) came into force under this coalition in early 2011. The SHI Financing Act aimed primarily at increasing the income side of the system by raising the universal contribution rate by 0.6% (which was lowered during the financial crisis in 2009 by the same percentage); additionally, the regulations regarding supplementary premiums were modified. The Pharmaceutical Market Reform Act introduced a benefit assessment of all new pharmaceuticals; only those with an additional benefit over existing alternatives can now be reimbursed at a higher rate (see section 6.1.5). A year

later, the SHI Care Structures Act (*GKV-Versorgungsstrukturgesetz*) came into force. Its main aim was to make health services accessible in a more equitable way (in terms of geography), with the stated objective of improving it in rural areas (see section 6.1.6).

Since December 2013, another grand coalition government (the third Merkel Cabinet) has been in power. In the coalition agreement, a particular focus is put on new initiatives to improve the quality of care, especially in the hospital sector.

Although health care reforms in Germany, with their focus on efficiency and appropriateness of care, have indeed shaped the performance of health care providers and payers substantially, the impact of general social developments and reforms in policy areas outside the health care sector should not be underestimated. The following are some of these.

- The transfer of West German institutions to former East Germany in the wake of reunification played a key role in restructuring the health care sector there and required substantial investment to meet West German standards.
- A large number of welfare reforms have affected the revenue side of the health care system, usually by reducing the SHI contributions of people such as pensioners, the unemployed, students or recipients of social welfare. In a few cases, however, revenue has been increased, for example by requiring people with minor part-time jobs (so-called *Minijobs*) to pay contributions.
- Both EU directives and case law have exerted considerable influence on the regulation of health care goods and services; although this has taken place largely out of the public eye, it will undoubtedly have a profound impact on health care delivery in the future. Particularly in the area of patient rights, changes can be expected in the near future through the transposition of the EU Directive on Patients Rights in Cross-Border Care into national law. It is also probable that the increasing control of public expenditure by EU Member States through the European Commission will intensify the requirement to justify the national levels of health expenditure internationally.

2.3 Organization

The wide range of actors who are involved in the organization of the German health care system is easiest to describe according to the separation of powers between federal, *Land* and corporatist levels.

2.3.1 Federal level

At the federal level, the Federal Assembly (*Bundestag*), Federal Council (*Bundesrat*) and the Federal Ministry of Health (*Bundesministerium für Gesundheit*) are the key actors in the health care system. Since 2014, the Federal Ministry of Health has been organized into six departments:

- central department, European and international health policy (Dept. Z)
- fundamental policy issues, telematics (Dept. G)
- pharmaceuticals, medical devices and biotechnology (Dept. 1)
- health care delivery, SHI (Dept. 2)
- health protection, disease control, biomedicine (Dept. 3)
- long-term care insurance, prevention (Dept. 4).

The Federal Commissioner for Narcotics (*Drogenbeauftragter der Bundesregierung*) and the Federal Commissioner for the Concerns of Patients (*Beauftragter der Bundesregierung für die Belange der Patientinnen und Patienten*) have been assigned to the Ministry since 1998 and 2004, respectively. The Ministry of Health is advised by a range of ad hoc committees, as well as by the Advisory Council for the Assessment of Developments in the Health Care System (*Sachverständigenrat zur Begutachtung der Entwicklung im Gesundheitswesen* (SVR)), which previously reported to the Advisory Council for "Concerted Action in Health Care" Round Table Committee:

The Ministry of Health is assisted by the following subordinate agencies (not shown in Figs. 2.1 and 2.2) in its licensing and supervisory functions, scientific consultancy work, and the information services it provides to the population and scientific community:

- The Federal Institute for Pharmaceuticals and Medical Devices (*Bundesinstitut für Arzneimittel und Medizinprodukte*) authorizes pharmaceuticals and supervises both their safety and that of medical devices (see section 2.8.4).

- The Paul Ehrlich Institute (Federal Institute for Vaccines and Biomedicines) is responsible for licensing vaccines and biomedicines.
- The Robert Koch Institute (Federal Institute for Infectious and Non-Communicable Diseases) is responsible for the surveillance, detection, prevention and control of diseases. It is also responsible for issuing and publishing health reports and epidemiological bulletins. Since 2000 the Institute's role in the areas of prevention and surveillance has been strengthened with regard to monitoring, the coordination of interventions, risk communication, international cooperation, and microbiological and epidemiological research (see section 5.1).
- The Federal Centre for Health Education (*Bundeszentrale für gesundheitliche Aufklärung*) is responsible for developing and disseminating health education materials. It organizes, coordinates and supports prevention campaigns and performs social marketing research for conceptual and evaluative purposes (see section 5.1).
- The German Institute for Medical Documentation and Information (*Deutsches Institut für Medizinische Dokumentation und Information*) provides the public and professionals with current information on all areas of medicine and the life sciences. After initially concentrating on biomedical subjects, the Institute now offers a collection of databases covering pharmaceuticals, medical devices and many other fields in medicine and health care, as well as topics in the social sciences. The Institute has been in charge of prioritizing, commissioning and publishing health technology assessment reports since 2000 (see section 2.7.2). It is also responsible for publishing the German versions of classification systems such as the *International Classification of Diseases* (ICD-10-GM), the *International Classification of Functioning, Disability and Health* (ICF) and the *German Procedure Classification* (*Operationen- und Prozedurenschlüssel*).

Other federal institutions relevant to the health care system are the Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*), which is responsible for supervision of private insurers (not listed in Fig. 2.1), and the Federal Insurance Authority (*Bundesversicherungsamt*), which is responsible for supervising the legality of decisions taken by the quasi-public corporations in charge of administering the various statutory insurance schemes. Among other administrative duties, it is also responsible for managing the Central Reallocation Pool, the risk-adjustment scheme (for both see section 3.3.3) and, since 2002, the accreditation of DMPs (see section 5.3).

2.3.2 State level

The federal structure of the German political system is represented primarily by the 16 *Land* governments and *Land* legislatures. None of the 16 *Länder* has its own ministry of health; instead, the responsibility for health in most cases is combined with that for labour and social affairs, whereas in others it is combined with family and youth affairs, environmental affairs and/or consumer protection.

Within a typical ministry, the responsibility for health is usually divided among four or five units. In Lower Saxony, for example, the health division is divided into the following units:

- public health services, communicable diseases, environmental hygiene, disaster preparedness and civil emergency planning;
- health promotion, pharmaceuticals, medical devices, biotechnology;
- occupational safety, product safety/consumer protection, prevention of substance abuse, state commissioner for narcotics;
- hospitals;
- health professions; and
- psychiatry.

Most other areas affecting health, such as traffic, city planning and education, are controlled by different ministries.

2.3.3 Corporatist level

The corporatist level within the SHI system consists, on the provider side, of the regional and federal associations of SHI physicians and dentists and, on the payer side, of the sickness funds and the Federal Association of Sickness Funds. These institutions are quasi-public corporations based on mandatory membership. The regional associations of sickness funds are still in place. The paramount decision-making body within the system of joint self-government is the Federal Joint Committee (Figs. 2.1 and 2.2). It consists of representatives of the above-mentioned federal associations of providers and payers, as well as of the German Hospital Federation (*Deutsche Krankenhaus Gesellschaft*). It also includes several neutral members.

Providers

Physicians accredited to treat patients covered by the SHI scheme are organized into regional associations of SHI physicians (*Kassenärztliche Vereinigungen*), which are based on obligatory membership and democratically elected representation. There is one of these associations in each German *Land*, with the exception of the populous *Land* of North Rhine-Westphalia, in which there are two. Until 2005, the executive boards of these 17 associations consisted of physicians serving on a voluntary, part-time basis. The positions on the boards are now filled full time as part of a long-disputed effort to professionalize these institutions. The members of the executive board are elected by an assembly of delegates (*Vertreterversammlung*). Since 2005, their number has been reduced and the majority voting system replaced by a proportional election system to represent better the interests of smaller groups among the physicians and psychologists. Moreover, the associations no longer distinguish between full members – in other words, SHI-accredited, office-based physicians – and other members, such as hospital physicians accredited to provide ambulatory care to SHI-covered patients. Since the Psychotherapy Act of 1999, psychologists with a subspecialization in psychotherapy, as well as child and adolescent psychotherapists, have been admitted to the regional associations. This was done to bring the provision and reimbursement of psychotherapeutic services in line with that for other health professionals.

As of the end of 2012, 141 038 physicians (without psychotherapists) were members of the regional associations of SHI physicians. The regional associations are represented at the federal level by the umbrella organization known as the Federal Association of SHI Physicians (*Kassenärztliche Bundesvereinigung*), which is a quasi-public corporation within the system of joint self-government and represents the political interests of SHI-accredited physicians and psychotherapists in dealings with the federal government.

SHI-accredited dentists are organized in the same way as physicians − that is, through regional associations of SHI dentists (*Kassenzahnärztliche Vereinigungen*) and the Federal Association of SHI Dentists (*Kassenzahnärztliche Bundesvereinigung*).

Unlike physicians and dentists, the just over 2000 hospitals (see section 4.1.2) are represented within the system of joint self-government through private-law organizations rather than quasi-public corporations. These organizations, however, have increasingly come to be charged with legal responsibilities and decision-making power within the SHI system. The most important of these organizations is the German Hospital Federation, which in addition to

representing the interests of hospitals in dealings with other stakeholders and the federal government, chooses two representatives to serve on the Federal Joint Committee. The membership of the German Hospital Federation consists of 16 *Länder* organizations and 12 hospital associations encompassing a wide variety of hospital types and ownership, including university, public municipal, and private for-profit institutions.

Payers

The main payers of health services in Germany are the sickness funds. In the wake of the Act to Strengthen Competition in SHI, all sickness funds have been represented within the system of joint self-government since January 2009 by the Federal Association of Sickness Funds rather than the various nationwide associations (*Spitzenverbände der Krankenkassen*) that had represented the different types of sickness fund at the federal level until that time. Some of these earlier associations still exist, but as private-law organizations.

As of 1 January 2014, there are 132 sickness funds providing approximately 69.9 million people with SHI coverage (i.e. some 51.0 million members plus their dependants) (Table 2.3). The 10 largest sickness funds insure two-thirds of all SHI-covered patients. There are 100 so-called "open sickness funds", sickness funds that can be chosen by every person independent of their occupation (see section 3.3.1). The *Techniker Krankenkasse* is currently the largest sickness fund counting 8.7 million insured, followed by the *Barmer GEK* with 8.6 million, and the *Deutsche Angestellten Krankenkasse* with 6.6 million.

The sickness funds are represented by the Federal Association of Sickness Funds, which is responsible for all SHI tasks besides those where the sickness funds compete with each other. Among those are the collective negotiations about contract conditions as well as payment schemes in ambulatory and inpatient care (see section 3.6). The Federal Association of Sickness Funds has five members in the Federal Joint Committee, where the most important decisions are taken (see section 2.5.3).

As of 1 January 2014, the distribution of sickness fund members and their dependants among the various types of sickness funds was as follows:

- 35% were insured by 11 AOKs;
- 37% were insured by 6 substitute sickness funds;
- 17% were insured by 107 company-based sickness funds (*Betriebskrankenkassen* (BKK));
- 8% were insured by 6 guild sickness funds (*Innungskrankenkassen* (IKK));

Table 2.3

Number of sickness funds in Germany 1993–2014 (as of 1 January)

	1993	1995	1997	1999	2001	2003	2005	2007	2008	2009	2010	2011	2012	2013	2014
General regional sickness funds	269	92	18	17	17	17	17	16	15	15	14	12	12	11	11
Company-based sickness funds	744	690	457	361	318	260	210	189	170	155	130	121	112	109	107
Substitute sickness funds	15	15	14	13	12	12	11	10	9	8	6	6	6	6	6
Guild sickness funds	169	140	43	42	28	23	19	16	17	14	9	7	6	6	6
Sickness fund(s) for agricultural workers	22	21	20	20	19	10	8	9	9	9	9	9	9	1	1
Sailors' sickness fund[a]	1	1	1	1	1	1	1	1	–	–	–	–	–	–	–
Miners' sickness fund	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	**1 221**	**960**	**554**	**455**	**396**	**324**	**267**	**242**	**221**	**202**	**169**	**156**	**146**	**134**	**132**

Source: Data updated from Bundesministerium für Gesundheit, 2013a.
Note: [a]The sailors' sickness fund merged with the miners' sickness fund on 1 January 2008.

- 2% were insured by the miners' sickness fund (*Knappschaft*; which had merged with the sailor's sickness fund (*Seekrankenkasse*) in 2008); and
- 1% were insured by the sickness fund for agricultural workers.

Special rules apply to the sickness fund for agricultural workers. It is not subject to the open enrolment requirement and accepts individuals only from its occupational group. The total number of insured is small, however, accounting for only 0.6% of those covered by SHI. Until 2007 similar rules also applied to the sickness funds for miners and sailors.

Sickness funds are non-profit, quasi-public corporations (or, to use German legal terminology, "corporations under public law"; *Körperschaften des öffentlichen Rechts*). The sickness funds are required by law to collect SHI contributions from their members; these contributions are mandatory and are generally split between employers and employees. Since 1 January 2009, the SHI contributions have been transferred by the sickness funds on the day of receipt to a Central Reallocation Pool, which redistributes the contributions among the sickness funds after making adjustments for risk (see section 3.3.3). Most sickness funds are run by an executive board with two full-time managers responsible for day-to-day operations and an administrative board, which elects the members of the executive board, adopts the by-laws of the sickness fund and passes the budget.

The total number of sickness funds has decreased steadily over the decades, a trend that accelerated after an open enrolment requirement was imposed by the Health Care Structure Act (*Gesundheitsstrukturgesetz*), which came into force in 1993 (Table 2.3).

The first wave of mergers, affecting the previous "local" sickness funds (AOK), took place between 1994 and 1995. As some of these sickness funds were very small, they merged to form one AOK in each of Germany's 16 *Länder*. This was followed in 1995 by mergers among the IKKs, in part before they had opened their ranks to outside (i.e. non-guild) members. Yet another wave of mergers took place among the BKKs, also in many cases they opened themselves to non-company members. Since early 1999, the BKKs that have opened their ranks to individuals outside their respective companies have had more members than the BKKs that have remained closed (see section 3.3).

Mergers among the different types of sickness fund were made possible as of 1 April 2007 by the Act to Strengthen Competition in SHI. The first such mergers took place on 1 January 2008 between *BKK Mobil Oil* and the substitute sickness fund KEH (to form "*BKK Mobil Oil*"), and between the

Handelskrankenkasse and *IKK Weser-Ems* (to form "*hkk*"). One year later, on 1 January 2009, the substitute sickness fund *Techniker Krankenkasse* merged with *IKK Direkt* to form the largest sickness fund (known subsequently as "*Techniker Krankenkasse*"). On 1 April 2009, mergers took place between the *AOK Sachsen-Anhalt* and the *BKK Sachsen-Anhalt* (to form "*AOK Sachsen-Anhalt*"), and between the substitute sickness fund *KKH* and the *BKK Allianz* (to form "*KKH-Allianz*"). On 1 April 2010 the *AOK Niedersachsen* and the *IKK Niedersachsen* merged.

Corporatist institutions in other statutory insurance schemes

Quasi-public corporatist institutions similar to the sickness funds exist in the other statutory insurance schemes and offer a number of health-related services.

- Workers' compensation funds (for the private sector) and so-called accident funds (*Unfallkassen*; for the public sector) administer the statutory insurance scheme for occupational accidents and disease, covering curative and rehabilitative care services necessitated by these causes.
- The statutory retirement insurance scheme is administered by various institutions (e.g. the *Deutsche Rentenversicherung Bund*) and covers medical rehabilitation services, with priority placed on reducing the risk of permanent disability among employees.
- The long-term care funds (*Pflegekassen*), which administer the statutory scheme of long-term care insurance, are quasi-public corporations in their own right, but in terms of organization are formed by and are directly affiliated with the existing sickness funds (see section 5.8).

Professional chambers

Outside the scope of SHI, legally established professional chambers exist for physicians (*Ärztekammer*), dentists (*Zahnärztekammer*), pharmacists (*Apothekerkammer*), veterinarians and, since 2003, for psychologists with a subspecialization in psychotherapy (*Psychotherapeutenkammer*). Health care professionals in these occupational groups are required by law to join their respective regional chamber. These organizations have the legal status of quasi-public corporations and are regulated by the laws of the *Land* in which they are located. They are responsible for secondary training, accreditation and continuing education, for setting professional and ethical standards, and for representing their members in dealings with policy-makers and in public relations. To coordinate their activities at the federal level, the regional chambers have formed federal chambers, such as the Federal Chamber of Physicians

(*Bundesärztekammer*), also known as the German Medical Association. Importantly, the federal chambers have a legal status under private law and may, therefore, only make recommendations to the regional chambers. Members of professional chambers enjoy certain exclusive rights, such as that to maintain their own pension schemes.

Nurses, midwives and physiotherapists do not participate in professional chambers, but rather in a variety of groups with voluntary membership; these have correspondingly fewer financial resources and less political clout. Nursing organizations, however, have come together to form an umbrella organization called the German Nursing Council (*Deutscher Pflegerat*), which according to law must be consulted on issues related to nursing (see section 2.3.5).

2.3.4 Social courts

Social courts constitute a separate court system that is responsible for disputes within all branches of social insurance. There are 69 social courts on the lower level, 14 at *Land* level (Berlin and Brandenburg as well as Lower Saxony and Bremen have joint ones) and the Federal Social Court in Kassel. Until 2003, filing a legal case was free of charge. Since then, differential user fees apply for socially insured people, individual providers, social insurance institutions or private-sector actors.

2.3.5 Other actors

Voluntary organizations outside the above-mentioned statutory and quasi-public institutions are too numerous to be listed individually but may be differentiated according to the main focus of their activities (e.g. scientific, professional, political or economic) and by the group(s) they represent.

There are more than 150 medical and scientific organizations under the umbrella of the Alliance of Scientific Medical Societies (*Arbeitsgemeinschaft Wissenschaftlich-Medizinischer Fachgesellschaften*). Physicians' organizations outside the corporatist domain can generally be divided into professional organizations and lobbying organizations. The former include organizations for GPs and for other specialties, such as the German Association of Family Physicians (*Deutscher Hausärzteverband*). These organizations set professional standards and defend the interests of their members within the wider medical profession and, to a lesser degree, in politics. The German Association of Family Physicians enjoys *de facto* a special status as it has received a quasi-monopoly to be the contracting partner for "family physician care models" as § 73b SGB V requires an organizational level of more than 50% in the

respective area – a precondition only met by this organization. Another type of professional organization is the local physicians' societies, which focus primarily on continuing education and provide a forum for physicians from all sectors working in a particular region. Two organizations that clearly engage in lobbying are the Hartmann Union and the Marburg Union (*Marburger Bund*). The former is the successor organization to the Leipzig Union, which was established in 1900 to defend the economic interests of physicians; most of its members are office-based physicians (see section 2.2). The latter was formed in 1948 to represent the interests of hospital physicians. Another organization that should be mentioned in this category is the Association of Democratic Physicians (*Verein demokratischer Ärztinnen und Ärzte*), which often finds itself in opposition to the above-mentioned physicians' organizations because it generally lobbies for better health and health care rather than for improved working conditions for medical professionals.

For psychologists there is the Association of German Psychologists (*Berufsverband Deutscher Psychologen*). In addition, psychologists who provide psychotherapy within the SHI system have formed the German Association of Psychotherapists (*Deutscher Psychotherapeutenverband*).

The main voluntary organizations of nurses are the German Nursing Association (*Deutscher Berufsverband für Pflegeberufe*) and, as a representative organization for Catholic, Protestant and Red Cross nursing associations, the Alliance of Christian Nurses' Associations and Nursing Organizations in Germany (*Arbeitsgemeinschaft Deutscher Schwesternverbände*). There is also the German Nursing Council, which represents 15 organizations of nurses and midwives, as well as organizations of paediatric and geriatric nurse practitioners. Other professional groups are represented in a variety of professional bodies, among the largest of which are the German Association for Physiotherapy (*Deutscher Verband für Physiotherapie – Zentralverband der Physiotherapeuten/Krankengymnasten*), the German Federal Association for Speech Therapy (*Deutscher Bundesverband für Logopädie*) and the German Association of Ergotherapists (*Verband der Ergotherapeuten*).

Aside from the regional chambers of pharmacists, the most important organization for this occupational group is the German Organization of Pharmacists (*Deutscher Apothekerverband*), the lobbying group for private pharmacists, who hold a virtual monopoly over the dispensing of pharmaceuticals in the ambulatory sector (see section 5.6). Together with the regional chambers of pharmacists, it forms the Federal Association of Pharmacists' Organizations (*Bundesvereinigung Deutscher Apothekerverbände*).

The associations representing the pharmaceutical industry underwent major changes in the 1990s, when the large, international research companies in Germany formed their own organization, the Association of Research-based Pharmaceutical Companies (*Verband forschender Arzneimittel-Hersteller*). The Association represents 45 manufacturers (in 2014), or about two-thirds of total pharmacy revenue. The Federal Association of the Pharmaceutical Industry (*Bundesverband der Pharmazeutischen Industrie*), with approximately 240 members in 2014, has since become an organization for small and medium-sized companies only. The split was partly attributable to disagreements over whether to support negative or positive lists of pharmaceuticals. Three other associations represent pharmaceutical manufacturers with special interests: the Federal Association of Pharmaceutical Manufacturers (*Bundesfachverband der Arzneimittel-Hersteller*) the approximately 320 producers of over-the-counter (OTC) pharmaceuticals, and Pro-Generics and the German Generics Association (*Deutscher Generikaverband*) the producers of generics.

The interests of producers of medical devices and technologies are represented by the Federal Association for Medical Technology (*Bundesverband Medizintechnologie*) and the German Industry Association for Optical, Medical and Mechatronics Technologies (*Deutscher Industrieverband für optische, medizinische und mechatronische Technologien*), also known as Spectaris.

Another important group on the providers' side is the Federal Alliance of Voluntary Welfare Organizations (*Bundesarbeitsgemeinschaft der Freien Wohlfahrtspflege*), which serves as the umbrella organization for six leading non-profit welfare organizations that own and manage hospitals, nursing homes, home care agencies and ambulance transportation services. In the last of these areas, these non-profit organizations actually provide the majority of services. The six associations are the Workers' Welfare Organization (*Arbeiterwohlfahrt*; with roots in the Social Democratic workers' movement), the German Red Cross (*Deutsches Rotes Kreuz*), the Catholic organization known as the German Caritas Association (*Deutscher Caritasverband*), the Association of Protestant Welfare Organizations (*Diakonisches Werk*), the Central Welfare Organization for Jews in Germany (*Zentralwohlfahrtsstelle der Juden in Deutschland*), and the Association of Independent Voluntary Welfare Organizations (*Deutscher Paritätischer Wohlfahrtsverband*).

Turning to the payers' side, the 42 major providers of PHI (2014) are represented through the Association of Private Health Insurance Companies (*Verband der privaten Krankenversicherung*), a powerful lobby group in the health care sector. Of the 43 private insurers, 24 are traded on the stock market and the other 19 are mutual insurers.

There is also a diverse spectrum of 40 000 to 60 000 self-help groups with approximately 3 million members, including organizations for the disabled. Of these groups, only some 360 are also organized at the federal level. Many organizations for the disabled and self-help groups for people with specific diseases are organized in the Federal Alliance for the Support of the Disabled (*Bundesarbeitsgemeinschaft Selbsthilfe von Menschen mit Behinderung und chronischer Erkrankung und ihren Angehörigen*), which is also represented at the state level in 14 *Länder*. Moreover, a large number of self-help groups belong to the Association of Independent Voluntary Welfare Organizations and take part in the Forum for the Chronically Ill and Disabled (*Forum chronisch kranker und behinderter Menschen*). Finally, the German Disability Council (*Deutscher Behindertenrat*) is a loose alliance of independent self-help groups or their umbrella organizations that represent the interests of disabled people and the chronically ill. Two large social associations are the *Sozialverband VdK Deutschland* (with some 1.6 million members) and the *Sozialverband Deutschland* (with some 525 000 members). They provide their members with counselling and legal support in issues related to social law and also represent at the political level the interests of recipients of social welfare benefits and individuals covered by social insurance, increasingly including people covered by SHI and patients.

2.4 Decentralization and centralization

Decentralization can take on different forms, which in the following order reflect an increasing level of autonomy from central government:

1. *Deconcentration*: the passing of some administrative authority from central government offices to the local offices of central government ministries.
2. *Devolution*: the passing of responsibility and a degree of independence to regional or local government, with or without financial responsibility.
3. *Delegation*: the passing of responsibilities to local offices or organizations outside the structure of the central government such as quasi-public (nongovernmental) organizations, but with central government retaining indirect control.
4. *Privatization*: the transfer of ownership and government functions from public to private bodies, which may consist of voluntary organizations and for-profit and non-profit private organizations.

In its common usage, the term decentralization does not fully capture the reality of German-style federalism. At first glance, the extensive powers wielded by the *Länder* might look like a prime example of devolution. It is important to note, however, that these powers were never passed down from federal government to the *Länder*, which as legal and territorial entities predate – and, indeed, founded – the Federal Republic of Germany. Instead, the opposite of devolution took place: the *Länder* passed certain rights and responsibilities, as defined in the Basic Law, to the federal government while at the same time retaining others.

Deconcentration is of only minor importance in the German health care system, playing a role in the area of public health services for example. This is because most levels of administration (with the exception of some *Land* administrations) in Germany lack subordinate administrative agencies, and all political units from the local level upwards have their own autonomous, elected representatives and governments.

As can be seen in section 2.5, the most striking aspect of the decentralized health care system in Germany is the delegation of government power to corporatist institutions. While most of the legal rights and responsibilities vested in the corporatist associations of payers and providers are the result of a long historical process (see section 2.2), the transfer of the existing system in West Germany to former East Germany constituted a true delegation of responsibilities by the government to corporatist institutions.

Privatization is another important feature of the German health care system. Unlike other areas in Germany, such as higher education, the delivery of health care services by public and private providers is untainted by ideology. Interestingly, the term "public" is generally used when speaking about the delivery of services (e.g. by public hospitals), while public funding through the sickness funds is labelled as "statutory". Indeed, the sickness funds transcend the categories of public and private since they are private in terms of their legal status but public in terms of their responsibilities and liabilities (Saltman & Busse, 2002). Moreover, they coexist with private insurance companies, which provide substitutive, supplementary and complementary voluntary health insurance (see section 3.5). Opting out of the SHI system and switching to PHI is not seen as a political statement but rather as a pragmatic way to save money or, in the case of self-employed individuals, as a necessity because many of them are not eligible for SHI coverage. Finally, the outsourcing of janitorial and maintenance services to private firms is very common but has never led to public debate.

In fact, some sectors of the German health care system are based entirely on private providers, for example the ambulatory care provided by physicians and dentists, as well as by pharmacies. In other sectors, both private non-profit and private for-profit providers coexist with public providers, for example in the social care sector (see section 5.8) or in the general hospital sector, in which there is a growing trend towards privatization (Table 2.4). In fact, the vast majority of hospitals are included in the state-level hospital requirement plans, including most private for-profit hospitals. All of these hospitals may treat patients covered by SHI and are subject to uniform regulations. Only a few private for-profit hospitals are not included in the hospital requirement plans and so may not treat SHI-covered patients. These hospitals are exempt from the general regulations meant to ensure equal distribution, equal access and financial sustainability (see section 5.4.1).

Table 2.4

Trends in the public–private mix of general hospitals, 1991–2012

	Public		Private non-profit		Private for-profit		Total
	Beds (thousands)	Share of all beds (%)	Beds (thousands)	Share of all beds (%)	Beds (thousands)	Share of all beds (%)	Beds (thousands)
1991	367	61.4	207	34.6	24	4.0	598
2000	284	54.2	201	38.4	39	7.4	524
2004	256	52.2	180	36.7	54	11.0	490
2010	223	48.3	164	35.5	75	16.2	462
2012	218	47.5	162	35.2	79	17.2	458
Change	–41%		–22%		+229%		–23%

Sources: Based on data from Wörz, 2008; Statistisches Bundesamt, 2013c.

Germany has a mix of public hospitals, private non-profit hospitals and for-profit hospitals. Public hospitals are usually owned by local governments. Although at first glance the overall mix of German hospitals did not change substantially in the 1990s, a clear trend is apparent upon closer inspection. Between 1991 and 2012, most of the reduction in hospital beds took place in public hospitals. The number of beds in private non-profit hospitals decreased as well, but to a lesser extent. At the same time, however, the number of beds in private general hospitals (= acute hospitals) increased by 229%, as did their share among all acute hospital beds (from 4.0% to 17.2%; Table 2.4).

The increase in the number of beds in private hospitals is primarily the result of takeovers of hospitals that used to be publicly owned. Such takeovers were more frequent in the eastern part of Germany, where the share of beds in

privately owned, acute-care hospitals is currently more than twice as high as that in the western part of the country. More than half of all private beds belong to hospital chains, which are chiefly responsible for the dynamic growth of the private hospital sector. The first sale of a university hospital to a private firm took place in 2006, when the Gießen and Marburg University Hospital was taken over by *Rhön-Klinikum AG*.

There are several reasons for the ongoing trend towards privatization: First, the proportion of public investments is decreasing because of budget constraints, and since many hospitals are in need of capital, private investment is seen as an attractive solution. Second, agreements between trade unions and employers are often less flexible and more expensive than collective agreements in the private sector. Moreover, legal provisions afford employees in public hospitals greater influence in decision-making than employees in private hospitals, thus potentially increasing resistance to personnel cuts. Third, many employees in public hospitals − as in the rest of the public sector − are required to take out complementary retirement insurance. Because this insurance is based on a pay-as-you-go system, it is becoming increasingly expensive as a result of the demographic shift. This puts public hospitals at a disadvantage compared with their private-sector counterparts (Wörz, 2008).

2.5 Responsibilities for regulation and planning

Responsibilities for planning and regulation in the German health care system are subject to the separation of powers between the federal government, the *Länder*, and the various institutions and interest groups at the corporatist level. Basic definitions are generally set by federal law (SGB V), whereas many details are delegated to corporatist level and the Federal Joint Committee. Table 2.5 provides an overview of decision-making authority in various sectors of the German health care system.

Table 2.5

Decision-making authority in the German health care system by sector, 2014[a]

Sector	Coverage decisions	Licensing/accreditation	Contractual relationship between sickness funds and providers	Quality assurance	Financing decisions
Ambulatory care (primary and secondary care)	Basic definition pursuant to federal law (SGB V); details delegated to corporatist institutions at the federal level (see section 2.8.1)	Basic definition pursuant to federal law (SGB V); details delegated to corporatist institutions at the federal (rules) and state (actual implementation) levels (see sections 2.5.1 and 2.5.3)	General rules according to federal law (SGB V); details delegated to corporatist institutions at the federal level; usually collective contracting, but selective contracting is possible (see sections 2.5.3 and 3.3.4)	Mandated by federal law (ambulatory care practices: internal quality management; regional associations of SHI physicians; external quality control); details delegated to corporatist institutions at the federal (rules) and state (actual implementation) levels (see section 2.8.2, Quality)	Reimbursement: basic definition pursuant to federal law (SGB V); details delegated to corporatist institutions at the federal (point values) and state (monetary valuation) levels (see section 3.6.2)
Inpatient care	Basic definition pursuant to federal law (SGB V); details delegated to corporatist institutions at the federal level (see section 2.8.1)	Licensing according to state law (see sections 2.5.2, 4.1.1 and 5.4.1)	De facto by state governments; legally, sickness funds may reject contracts negotiated with individual hospitals, but the final decision is taken by state governments (see section 2.5.2)	Mandated by federal law (SGB V): internal and external quality control; details delegated to corporatist institutions at the federal level (see 2.8.2, Quality)	Capital investment: mainly by the states.
Integrated, cross-sector care	Basic definition pursuant to federal law (SGB V); details delegated to corporatist institutions at the federal level (rules) and, at the state level, to individual providers or their associations who enter into selective contracting arrangements (actual implementation) (see section 2.8.1)	Conditions defined by federal law (SGB V) (see section 5.4.3)	Selective contracting for integrated care and collective contracting for ambulatory health care centres (see sections 2.5.3 and 3.3.4)	Mandated by federal law (internal and external quality assurance); details delegated to corporatist institutions at the federal level (see section 2.8.2, Quality)	Budgets and volumes delegated to negotiations between sickness funds and providers; start-up financing from 2004 to 2008 (see section 5.4.3)
Dental care	Basic definition pursuant to federal law (SGB V); details delegated to corporatist institutions at the federal level (Federal Joint Committee) (see section 2.8.1)	Licensing according to federal law; basic definition pursuant to federal law (SGB V); details delegated to corporatist institutions at the federal (rules) and state (actual implementation) levels (see sections 2.5.1 and 2.5.3)	General rules according to federal law (SGB V); details delegated to corporatist institutions at the federal level (see sections 2.5.3 and 3.3.4)	Mandated by federal law (SGB V); details delegated to corporatist institutions at the federal (rules) and state (actual implementation) levels (see section 2.8.2, Quality)	Basic definition pursuant to federal law (SGB V); details delegated to corporatist institutions at the federal (point values) and state (monetary valuation) levels (see section 3.6.2)

Pharmaceuticals (ambulatory)	Basic definition pursuant to federal law (SGB V); details delegated to corporatist institutions at the federal level (Federal Joint Committee) (see section 2.8.4, Coverage/SHI reimbursement of pharmaceuticals)	Market authorization pursuant to EU law or federal law (see section 2.8.4, Licensing of pharmaceuticals)	Framework contract on federal level; details delegated to corporatist institutions at the federal and state level; agreements on rebates between sickness funds and manufacturers (see section 2.5.2)	Basic definition pursuant to EU and federal law; pharmacovigilance by licensing agencies at the federal and EU levels; details related to quality control of physician prescription behaviour delegated to corporatist institutions at the federal (rules) and state (actual implementation) levels (see sections 2.8.4, Licensing of pharmaceuticals, and 5.6)	No direct price regulation, but indirect measures (e.g. wholesale mark-up and pharmacy mark-up for prescription drugs by federal law) or proof of (additional) benefit; reimbursement rules delegated to self-governing bodies at federal level; negotiation and control of benchmarks per physician practice delegated to self-governing bodies at federal state level (see section 5.6)
Public health services	Legislation only on certain aspects at federal level (e.g. infectious diseases and radiation); *Land* legislation and rules vary by *Land* (see section 5.1)	None	None	Supervised by higher administrative level; internal quality management as part of administrative modernization initiatives at municipal or *Land* level (see section 5.1)	Legislation at *Land* level; responsibility for implementation has been devolved to municipalities in 14 of Germany's 16 *Länder* (see section 5.1)

Source: Based on data in Busse & Riesberg, 2004.
Note: [a]The phrase "corporatist institutions" refers to the corporatist institutions of payers (sickness funds) and providers (SHI-accredited physicians, hospitals) that administer the German SHI system at the federal and state (*Land*) levels. Although the term "state" is used here for clarity, it is important to remember that the populous *Land* of North Rhine-Westphalia is often regarded as two regions, each with its own corporatist institutions within the SHI's system of joint self-government (hence the translation "regional associations of SHI physicians" for *Kassenärztliche Vereinigungen*, of which there were 17 as of May 2014).

2.5.1 Responsibilities for regulation at the federal level

The federal level addresses benefits in the various statutory insurance schemes, as well as uniform rules for providing and financing these benefits. The SGB is the foundation of social insurance in Germany. It regulates statutory insurance across different ministries.

The entitlements, rights and responsibilities of insured individuals are enumerated in SGB I and are described in detail in subsequent books of the SGB; SGB IV and SGB X set forth regulations and administrative procedures common to all of the social insurance schemes. Although health-related social services are governed by several parts of the SGB, the most important of these is SGB V, which lays out the regulatory framework for the SHI system. Other insurance schemes also operate in the health care sector. These include the statutory scheme for occupational accidents and disease (SGB VII); for retirement insurance (SGB VI, SGB IX), which represents a major source of financing for medical rehabilitative measures; and, since 1995, for long-term care insurance (SGB XI).

SGB V has been amended and expanded many times by reform legislation. Indeed, it has been numerously modified. SGB V Chapter 1 defines the basic principles of the SHI system, and the remaining chapters address the following areas:

- mandatory and voluntary membership in sickness funds (Chapter 2)
- contents of the SHI benefits package (Chapter 3)
- relationships between the sickness funds and health care providers (Chapter 4)
- the SVR (Chapter 5)
- organizational structure of sickness funds and their associations (Chapters 6 and 7)
- financing mechanisms (Chapter 8)
- the SHI Medical Review Board (Chapter 9)
- insurance data and claims data; data protection and transparency (Chapter 10)
- fines and penalties (Chapter 11) and
- special transitional provisions for the eastern part of Germany (Chapter 12, which was added to the SGB pursuant to the Unification Treaty) and further transitional rules (Chapter 13).

Chapter 4 is the core chapter regulating the corporatist institutions and their interactions within the system of joint self-government. It stipulates the areas in which decisions can and must be made by joint committees of sickness funds and health care providers, and those in which decisions can be reached through direct negotiations. Examples of the former include the details of the SHI benefits package or the relative point values for services provided by SHI-accredited physicians. Examples of the latter include the total remuneration for ambulatory or dental care. Chapter 4 also defines the organizational level at which these negotiations must take place; how the composition of the joint committees is decided, and what must happen in the event of tie votes or if the negotiating parties fail to reach an agreement. The details of these arrangements will be discussed in the following sections.

Whereas the legal framework of SGB V is set at the federal level by the legislature, the Federal Ministry of Health is responsible for supervising the Federal Association of SHI Physicians, the Federal Association of Sickness Funds, and the Federal Joint Committee and its decisions. The responsibility for supervising sickness funds that operate on a nationwide basis lies with the Federal Insurance Authority, which is also entrusted with managing the system of risk-adjustment between the sickness funds and the Central Reallocation Pool.

The Federal Ministry of Health is also responsible for long-term care, which is regulated by SGB XI, and structured quite similarly to SGB V, although it is only one-third of the earlier book's length. Other health-related responsibilities at the federal level include (1) the supervision of PHI companies by the Federal Financial Supervisory Authority (within the purview of the Federal Ministry of Finance), (2) health-related consumer protection (the remit of the Federal Ministry of Justice and Consumer Protection), and (3) environmental pollution and radiation protection (responsibility of the Federal Ministry for Environment, Nature Conservation, Building and Nuclear Safety).

The German constitution, which is known as the Basic Law, requires living conditions to be equivalent throughout the country. Health promotion and protection, however, are not specifically mentioned as a goal (unlike in East Germany, where Article 35 of the constitution named health protection as a state objective). As described in section 1.3, the Basic Law defines some areas of legislative authority that are reserved explicitly for the federal government, and other areas of legislative authority that fall neither within the exclusive remit of the federal government nor within that of the *Länder* (and are reserved for what is known as "concurrent" legislation). The area of health does not belong to the former, but specific topics relevant to health do belong to the latter

category. Examples include legislation related to social benefits, diseases that threaten public safety, radiation protection, the certification of physicians and other health professionals, pharmaceuticals, the financial situation of hospitals, and various environmental protection issues. Importantly, federal law – where it exists in these areas – takes precedence over state law. All other aspects of public health thus implicitly fall within the remit of the *Länder*.

2.5.2 Responsibilities for regulation at the *Länder* level

The *Länder* governments are responsible for capital investments, which are based on state-level hospital requirement plans (see sections 3.6.1 and 5.4). The investments are made independently of hospital ownership and according to the priorities of each *Land* government. While the *Länder* are clearly responsibility for major investments, such as large-scale medical technology and the construction of buildings, the responsibility for financing building maintenance and repairs now lies with the sickness funds.

A second major responsibility of the *Länder* is public health services (subject to certain federal laws concerning diseases that threaten public safety). Although some *Länder* operate these services themselves, most have transferred authority in this area to local governments. Public health services are responsible for supervising employees in health care institutions; preventing and monitoring transmissible diseases; supervising commercial activities involving food, pharmaceuticals or drugs; monitoring some aspects of environmental hygiene; delivering community-based psychiatric services; providing health education and promotion activities; and conducting medical inspections of schoolchildren. Since the 1970s, most preventive measures, such as screening programmes and health check-ups for children and adults, have been included in the SHI benefits package and have, therefore, been delivered by private-practice physicians (see section 5.1).

In addition, the *Länder* are responsible for undergraduate medical, dental and pharmaceutical education, as well as for supervising the regional chambers of physicians, the regional associations of SHI physicians, and the sickness funds operating within each *Land* (see section 4.2.3).

The *Länder* coordinate their (public) health activities through the Working Group of Senior State Health Officials (*Arbeitsgemeinschaft der leitenden Ministerialbeamten der obersten Landesgesundheitsbehörden*) and the Conference of Health Ministers (*Gesundheitsministerkonferenz*), neither of which has authority, however, to issue regulations.

In addition, the *Länder* have established various joint institutions to enable them to perform certain tasks. For example, the *Länder* of Bremen, Hamburg, Hesse, Lower Saxony, North Rhine-Westphalia and Schleswig-Holstein maintain the Düsseldorf Academy of Public Health (*Akademie für öffentliches Gesundheitswesen in Düsseldorf*) to train public health physicians. A joint institution of all *Länder* is the Institute for Medical and Pharmaceutical Examination Questions (*Institut für Medizinische und Pharmazeutische Prüfungsfragen*), which is responsible for preparing and marking the written parts of examinations for physicians, dentists and pharmacists as part of their undergraduate education. The Institute has played a primarily consultative role in the education of physicians since 2004, after regulations governing the registration of medical health professionals gave medical schools greater autonomy in selecting students and designing curricula.

2.5.3 Responsibilities for regulation at the corporatist level

Although the federal government, the Federal Assembly (*Bundestag*) and the Federal Council (*Bundesrat*) have assumed increasing responsibility for reforming health care through legislation since the 1980s, the German health care system is still characterized by a relatively strong degree of decentralized and autonomous decision-making. Of particular importance are corporatist institutions of payers and providers that administer the SHI and other statutory insurance schemes. However, whereas federal and *Länder* governments have decision-making powers and financial obligations within the schemes for unemployment and old-age and disability insurance, this is not the case with the SHI, long-term care, or occupational accident and disability schemes. The non-profit corporatist institutions within the SHI system are based on mandatory membership and internal democratic legitimization. They are financed by their members, who in the case of the sickness funds may also include so-called voluntary members (e.g. people who earn more than the upper wage threshold beyond which employees may currently opt out of SHI, or self-employed individuals). Furthermore, much of the decision-making in the SHI system takes the form of horizontal negotiations between corporatist institutions and other organizations of payers and providers at the federal and *Länder* levels.

In most European countries, the decision-making powers of corporatist institutions within other systems of joint self-government have been reduced in recent years in attempts to reach cost-containment targets. In Germany, however, the opposite trend has generally been the case. Although the federal government's aim to exercise more control over the type and delivery of

services included in the SHI benefits package has led to increased government supervision of decisions taken by the corporate institutions within the SHI system, this has not led to a concentration of decision-making powers among government authorities. Rather, the goal of cost-containment has led within the system of joint self-government to the creation of joint committees consisting of representatives from the rival corporatist institutions and charged with implementing concrete cost-effective or cost-saving measures. Federal legislation has also encouraged competition among the sickness funds. At the same time, power-making authority within the system of joint government has been transferred, and thus centralized, to institutions located at the federal level as a way to ensure uniform standards; examples include the Federal Association of Sickness Funds and the Federal Joint Committee. It is important to note that the growing tendency to establish joint committees has resulted in a relative decrease in the autonomy of the corporatist institutions of physicians, accompanied by an increase in the ability of the sickness funds to influence the organization and provision of services.

Joint self-government

In accordance with the principle of subsidiarity, a range of corporatist institutions, such as the sickness funds and regional associations of SHI physicians, are mandated by SGB V to administer the SHI scheme under the supervision of federal and *Länder* authorities. Within this system of joint self-government, the corporatist institutions either enter into direct negotiations with each other or form joint decision-making committees with equal representation. While some of the tasks assigned by law to the corporatist institutions always require decisions made by joint committees (e.g. defining benefits), other tasks are decided by joint committees only if no agreement can be reached in open negotiations (e.g. setting the budget for ambulatory care). In yet other cases, a joint committee is the first level of appeal against decisions taken by another joint committee (e.g. an appeal lodged by an SHI-accredited physician with a claims review arbitration committee against sanctions imposed by a claims review committee) (see section 3.6.2).

Among the joint committees at the federal level are the Federal Joint Committee (*Gemeinsamer Bundesausschuss*), the Valuation Committee (*Bewertungsausschuss*) and the Extended Valuation Committee (*Erweiterter Bewertungsausschuss*) for the ambulatory sector and the Committee on Hospital Payment (*Ausschuss Krankenhaushausentgelt*) for the hospital sector. At the state level, there are the arbitration committees (which can be called

upon, for instance, if bilateral negotiations on reimbursement increases fail); accreditation committees and accreditation arbitration committees; and claims review committees and claims review arbitration committees.

Since 2001 the Federal Association of Sickness Funds and the German Hospital Federation have jointly run the independent German DRG Institute (also known as the Institute for the Payment System in Hospitals or the Institute for the Hospital Remuneration System; *Institut für das Entgeltsystem im Krankenhaus*), which supports the continuous development of the DRG system (see section 3.6.1). Similarly, the Institute of the Valuation Committee (*Institut des Bewertungsausschusses*), founded by the Federal Association of Sickness Funds and the Federal Association of SHI Physicians in 2006, supports the work of the (Extended) Valuation Committee.

For many years, the Federal Committee of Physicians and Sickness Funds (*Bundesausschuss der Ärzte und Krankenkassen*) was the most important decision-making body on benefits in the ambulatory care sector. Established in 1923, it was the oldest joint institution in the system of joint self-government. In 2000, a joint committee known as the Committee for Hospital Care (*Ausschuss Krankenhaus*) was introduced for the hospital sector. It consisted of representatives of sickness funds and the German Hospital Federation. The Committee was entrusted with quality assurance functions and with decision-making on benefit exclusions, but was not required to provide positive decisions on benefit coverage (unlike its ambulatory counterpart). In addition, a Coordinating Committee (*Koordinierungsausschuss*) was introduced to coordinate the activities of the committees for ambulatory physician care and hospital care. The Coordinating Committee was also responsible for identifying areas of over- or underutilization, as well as with passing intersectoral treatment health care guidelines and since 2002 also DMPs (see section 5.3).

When the SHI Modernization Act came into force in 2004, the Federal Committee of Physicians and Sickness Funds, the Committee for Hospital Care and the Coordinating Committee were merged to form the Federal Joint Committee, the paramount decision-making body in the SHI scheme's system of joint self-government. Since July 2008, in the wake of the Act to Strengthen Competition in SHI, the Federal Joint Committee has only one decision-making body – the Plenary Group – in which all decisions related to ambulatory, dental and hospital care are made. The Plenary Group consists of three full-time neutral members, five representatives of the Federal Association of Sickness Funds, five representatives from provider groups (two from the Federal Association of SHI Physicians, two from the German Hospital Federation, and one from

the Federal Association of SHI Dentists) and five non-voting representatives of formally accredited patient organizations that have been given the right to participate in consultations and to propose issues to be assessed and decided upon. However, the SHI Care Structures Act (in force since 2012) has regulated that for decisions which concern only one or two sectors (e.g. only hospitals or only hospitals and ambulatory medical care, but not dental care) only the relevant provider organizations can vote on behalf of the providers (i.e. a partial going back to the previous sectoral decision-making). Equally, the nomination of the three neutral members has changed: instead of being directly appointed through the represented organizations for four years, the organizations can now only make a proposal for six-year terms to the Federal Ministry of Health. The proposals are presented to the Health Committee of the Federal Assembly (*Bundestag*), which can veto a proposal with a two-thirds majority. In a sense, the Federal Joint Committee has become more "political" in this way.

Based on the legislative framework of the Social Code (as set out in the SGB), the Federal Joint Committee issues directives (*Richtlinien*) relating to almost all sectors of care (e.g. the directive for technology assessment regarding inclusion or exclusion of the SHI benefit basket; see section 2.7.2). All directives issued by the Federal Joint Committee are transferred to the Federal Ministry of Health. Unless the ministry objects to a directive for formal reasons within a period of two months the directive becomes legally binding for actors in SHI although subject to complaints at social courts.

Directives are mainly concerned with the coverage of benefits and assuring that SHI services are adequate, appropriate and efficient. They also seek to clarify rules for patients' access, to steer accountable behaviour of all office-based physicians individually and to address questions of capacity and distribution of care (Table 2.3). In particular, the Federal Joint Committee passes regulations in the following areas (§ 92 SGB V):

- medical treatment;
- dental treatment;
- measures for the early detection of disease;
- pregnancy and neonatal care;
- introduction of new diagnostic and treatment technologies;
- prescription of pharmaceuticals, dressing/bandaging material, non-physician treatment such as physical therapy, ergotherapy and speech therapy (i.e. *Heilmittel*), medical aids, hospital treatment, home care, and sociotherapy;

- sickness absence certification;
- prescriptions and counselling related to medical rehabilitative services;
- requirements planning; and
- assisted reproductive technology, contraception, abortions and sterilization.

The Act to Strengthen Competition in SHI expanded the scope of regulations passed by the Federal Joint Committee to include:

- quality assurance
- specialized palliative ambulatory care
- immunizations.

Since the SHI Care Structures Act, the scope has been further enlarged to include directives for DMPs and the newly created "highly specialized ambulatory care" (offered by both office-based physicians and hospitals). Regarding DMPs, the Federal Joint Committee was previously legally confined to making recommendations only.

Accordingly, the Federal Joint Committee has organized its work in nine subcommittees to prepare proposals, which are then voted upon by the Plenary Group:

- pharmaceuticals;
- quality assurance;
- DMPs;
- methods assessment (i.e. inclusion of new ambulatory care services in the benefit basket; note that in hospitals, services can only be excluded);
- highly specialized ambulatory care (by office-based physicians and hospitals; new sector since 2012);
- referred services (i.e. rehabilitation, care provided by non-physicians, ambulance transportation, etc.);
- needs-based planning (of physicians for ambulatory care but note that hospital capacities are planned by *Land* governments);
- psychotherapy; and
- dental services.

All subcommittees include representatives of the sickness funds, the relevant provider organizations and patient representatives.

Once a decision to include a technology into the benefits package of ambulatory SHI-affiliated physician services has not been objected to by the Ministry of Health, another joint committee, known as the Valuation Committee, determines reimbursement issues and requirements for physicians who want to claim reimbursement for the delivery of this technology from SHI (see section 2.7.2). The Valuation Committee consists of representatives from the Federal Association of Sickness Funds and the Federal Association of SHI Physicians. In particular it determines the relative value of a technology compared with other technologies in the Uniform Value Scale (*Einheitlicher Bewertungsmaßstab*; see section 3.6.2). In addition, the Valuation Committee defines the exact conditions for providing a particular service: by which physicians, for which patients, how often, in conjunction with which other services, documentation requirements and so on.

In its decision-making, the Federal Joint Committee is assisted by the Institute for Quality and Efficiency in Health Care (*Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen*), a foundation established in 2004 by the SHI Modernization Act. The Institute is financed by the stakeholders in the system of joint self-government. It has the legal tasks of:

- evaluating the efficacy of drugs as a basis for deciding whether a drug falls under the reference price scheme or not;
- writing scientific reports and statements on questions of the quality and efficiency of SHI benefits;
- evaluating evidence-based guidelines for epidemiologically important diseases;
- giving recommendations on DMPs;
- researching, evaluating and presenting up-to-date medical knowledge of diagnostic and therapeutic interventions of selected diseases; and
- providing comprehensible information to citizens on the quality and efficiency of care.

The Institute for Quality and Efficiency in Health Care may outsource the development of scientific reports and patient information or it may develop these itself. In doing so, it follows procedural guidelines that were first published in March 2005 and are updated each year.

A further independent institution that was created by law to support the Federal Joint Committee is a quality institute, which – unlike the Institute for Quality and Efficiency in Health Care – is charged with quality of providers

(and across sectors). This institution has been selected through a Europe-wide procurement procedure; the role is currently held by the AQUA Institute (Institute for Applied Quality Improvement and Research in Health Care; see section 2.8.2).

Supervision

Supervision of corporatist decisions – whether those of single institutions or those of joint committees – is a multilayered endeavour involving the corporatist institutions within the system of self-government, the government itself and the social courts. "The government" is the Federal Ministry of Health in situations concerning federal associations of sickness funds and providers, joint institutions and their decisions and contracts. Nationwide sickness funds are supervised by the Federal Insurance Authority. For actors, decisions and contracts on the state level, the government is the SHI unit within the *Land* ministry responsible for health.

Supervision and enforcement by federal bodies can be divided into several levels:

- formal approval of (or lack of objection to) decisions taken by the self-governing bodies;
- veto of decisions taken by corporatist institutions within the system of self-government if these are not taken according to the law;
- a right of intervention by the federal government where no decisions have been taken (*Ersatzvornahme*), for example, as applied during the introduction of DRGs as a payment system in hospitals (see section 3.6.1); and
- legal action against institutions that do not fulfil their charge.

Disputes are usually resolved during the joint negotiations. If the actors cannot resolve disputes over tasks that have been delegated to them by law, a sophisticated system of joint arbitration committees and regulations is applied to make sure that a regulatory vacuum is avoided and that contracts among the responsible actors are in place in time.

The self-governing structures of SHI have been criticized as lacking transparency and accountability. In a health sector-specific report from 1999, Transparency International criticized *Länder* governments' weak exertion of their supervisory powers on health care actors and failure to control fraud and corruption adequately. Various fraudulent claims have received substantial

publicity since then, resulting in criminal charges. Since 2004, sickness funds as well as regional associations of physicians and dentists have been obliged to install internal corruption units.

Social courts

Many corporatist decisions as well as parliamentary laws or governmental regulations may be challenged before the social courts (see section 2.3.4). Within health care, cases resolved by social courts include, for example, patients suing their sickness fund for not granting a benefit; individual physicians disputing the calculations of the Claims Review Arbitration Committee at *Länder* level; or medical device companies objecting to the non-inclusion of their product in the ambulatory medical services benefits package. In fact, the number of complaints that drug manufacturers have filed against the price setting and grouping of drugs under reference price schemes or against prescription recommendations through the directive on pharmaceuticals seems exceptionally high in international comparison. Most of the claims challenged the legitimacy of the Federal Association of Sickness Funds to intervene into the (SHI-related) drug market as nongovernmental actors. The legitimacy of the Federal Association of Sickness Funds to define reference prices was approved by the European Court of Justice in early 2004 based on the legal delegation of public tasks for public purposes (see section 5.6).

2.6 Intersectorality

Apart from the Ministry of Health, several federal ministries work on different population health issues. The Ministry of Food and Agriculture initiated a network that brings together programmes to promote healthy nutrition and physical activity among different sectors of the population, for example children, pregnant women and elderly people. Environment-related health is one of the responsibilities of the Ministry for Environment, Nature Conservation, Building, and Nuclear Safety. Several initiatives aim at recognizing adverse environmental effects and to reduce or prevent their formation if possible. With the option of choosing between different sickness funds and tariffs as well as between various service providers, the competition for patients has increased. Therefore, consumer protection has become a health-related topic. Until 2013, health-related consumer protection was linked to the Federal Ministry of Food and Agriculture and is today a department of the Ministry of Justice and Consumer Protection. The Federal Ministry of Labour and Social Affairs (*Bundesministerium für Arbeit und Soziales*) is responsible for the participation

of disabled people and rehabilitation as well as work-related mental health. Although population health issues arise in a number of federal ministries, interactions and collaborations between these sectors and the Ministry of Health are rather small.

Collaborations between different stakeholders tend to take place at state and corporatist levels and are often associated with public health services (see section 5.1). Some *Länder* public health services have initiated local committees known as "health conferences", bringing together a broad variety of providers, payers and self-help groups in order to agree on health targets and to improve coordination of prevention measures. In North Rhine-Westphalia, health conferences have even been established through legislation. Several public health offices have also introduced such conferences at the municipal level. Another forum for improving cooperation among public health services, SHI-accredited physicians, policy-makers and many other stakeholders has been established at the federal level. The German Forum for Prevention and Health Promotion (*Deutsches Forum Prävention und Gesundheitsförderung*) was founded in July 2002 following stakeholder initiatives at the federal level since 2000 to define health targets and debate ways to strengthen prevention in round-table discussions. The target of the forum's 71 institutional members (2012) is to actively strengthen prevention and health promotion, to promote the development of broad preventive programmes and information and to establish sustainable organizational structures capable of fund raising. Priority areas of activity are health promotion in preschools, schools and workplaces, prevention in old age and a comprehensive programme to prevent cardiovascular diseases.

2.7 Health information management

2.7.1 Information systems

The planning of measures on health care provision is based on a range of information and research made available by various actors at the federal, state and corporatist levels.

The first comprehensive Federal Health Report, summarizing data and written information from the various fields of epidemiology, public health and health care, was published in 1998 by the Robert Koch Institute, a subordinate agency to the Federal Ministry of Health responsible for the control of infectious diseases and health reporting (see section 2.3.1). Since then, further surveys have continually expanded and updated the available data. The results

of the Federal Health Report are made available to the public through an online database and various topic-specific publications, which also serve as aids to the policy-making process (Robert Koch-Institut, 2012).

Since 2001, the SVR (until 2004 the Advisory Council for "Concerted Action in Health Care" Round Table Committee) has reported every two years to the Federal Ministry of Health on current developments in the health care system. The reports concentrate in particular on analysing trends in health care provision and their clinical and economic impact; they also highlight areas characterized by overprovision, underprovision and misprovision of health care.

The Federal Association of Sickness Funds and the Federal Association of SHI Physicians are obliged by law to provide and publish statistics on their financial performance and activities and about the structure of their membership. They have the autonomy to utilize member fees for performing health technology assessment and/or financing health services research, health policy research as well as to disseminate related reports. The Federal Association of General Regional Sickness Funds (*AOK-Bundesverband*), for example, founded their own scientific institute (the Scientific Institute of the General Regional Funds (*Wissenschaftliches Institut der Allgemeinen Ortskrankenkassen*)) as early as 1976. Another institute is run by the *Techniker* sickness fund.

The Federal Association of SHI Physicians runs its own research institute that, among others, developed certified training courses for patient education and evaluates innovative care models. The institute's activities include particularly the sectors of medicine, health services research, health economics and information and communications technologies.

Since 1999, the Federal Ministry of Education and Research (*Bundesministerium für Bildung und Forschung*) and the Federal Association of Sickness Funds (with the support of the Federal Ministry of Health) have been funding a comprehensive programme for health services research based on tenders. This programme has been expanded by the federal government to include the research initiative known as *Health Research: Research for People* (*Gesundheitsforschung: Forschung für den Menschen*). It is supported by both ministries, but financed by the Federal Ministry of Education and Research. Between 2008 and 2011, the Federal Ministry of Education and Research made €630 million available in funding for health services research, including studies on effective ways to fight diseases, on making the health care system effective and affordable, and on the interface between science and the private sector in

the area of health care. In addition, the Federal Chamber of Physicians has supported health services research in areas which are of special importance to physicians (e.g. effectiveness of guidelines).

2.7.2 Health technology assessment

Regulation and control of health technologies in Germany was not a major issue in the past. Although German regulations, particularly licensing for pharmaceuticals (see section 2.8.4) and medical devices, meet international standards, other types of technology did not receive the attention they deserved. The regulation and evaluation of health technologies has increased in importance in recent years. Since the introduction of the SHI Modernization Act in 2004, health technologies have become an integral component in defining the package of health services covered under the statutory system. In making these decisions, the Federal Joint Committee is aided by the Institute for Quality and Efficiency in Health Care, which commissions health technology assessment and makes recommendations for the inclusion or exclusion of technologies into the benefits covered under SHI, although it does not have any decision-making powers. A health technology assessment database has been established at the German Institute for Medical Documentation and Information to support decision-making by the Federal Joint Committee. Since 2004, several institutions and procedures have been introduced to facilitate the evidence- and information-based regulation of innovations. Regulation of licensing and reimbursement of pharmaceuticals and medical devices are described in detail in section 2.8, while the following section contains issues on the role of health technology assessment in ambulatory and inpatient medical treatment.

Ambulatory medical treatment

The regulation of access to interventions and technologies in the ambulatory sector is delegated to joint committees of SHI-accredited physicians and sickness funds at federal level. Since 2004, the responsible body is the Federal Joint Committee. Its Subcommittee on Methods Assessment (*Unterausschuss Methodenbewertung*) is responsible for assessing reimbursable medical technologies. The predecessor of this was the Federal Committee's Working Committee on New Diagnostic and Therapeutic Procedures, which decided on the effectiveness of new technologies (see section 2.5.3). Since July 1997, it had also been responsible for the evaluation and re-evaluation of technologies that were already covered by SHI in ambulatory physician care. Until 1997, the Working Committee acted according to a set of criteria outlined by the Federal Committee of Physicians and Sickness Funds. New technologies could only be proposed when they were perceived to be "necessary" from a physician's

point of view and when enough data were available for their evaluation. The right to propose was confined to the regional associations of SHI physicians, the Federal Association of SHI Physicians and the federal associations of sickness funds.

Approval required at least one randomized controlled trial, case–control study, cohort study or two from the following: time series comparisons, non-controlled clinical trials, studies showing a change in relevant physiological parameters or expert statements based on scientific evidence. This system could be influenced by a number of factors, not necessarily based on sound scientific evidence but rather on interest and opinion. After criticisms concerning the existing procedure and the extension of the Committee's mandate to evaluate existing technologies, new directives were passed in October 1997. These have since been revised and now relate not only to services provided by physicians but also to those provided by psychologist psychotherapists.

The evaluation of services requires criteria for need, medical necessity and efficiency, as these are the legal requirements. The Subcommittee on Methods Assessment performs an explicit prioritization of technologies to be evaluated. The results are announced publicly and medical associations and possibly individual experts are invited to submit evidence concerning the three mentioned criteria. The Subcommittee then examines the quality of the evidence presented by the applicant, the medical association(s) and individual experts as well as the results of its own (literature) searches.

Therapeutic procedures are classified according to five categories following internationally recognized schemes of evidence-based medicine:

Ia: systematic reviews of randomized control trials (evidence level Ib);

Ib: randomized controlled trials;

IIa: systematic reviews of prospective comparative cohort studies (evidence level IIb);

IIb: prospective comparative cohort studies;

III: retrospective comparisons;

IV: case studies and other non-comparative studies; and

V: expert opinion without explicit critical appraisal, or based on physiology, bench research or "first principles".

Diagnostic procedures are arranged in similar categories. For both therapeutic and diagnostic procedures, at least one study with level I evidence is necessary. In cases of rare diseases, the requirements do not have to be met necessarily.

Based on the more or less evidence-based assessment of the evidence, the Subcommittee on Methods Assessment recommends whether the technology should be included in the SHI benefit package. Another type of decision was taken by the former Federal Committee of Physicians and Sickness Funds in 2001, when it concluded that evidence for the efficacy, safety and everyday effectiveness of acupuncture was not sufficient to decide on SHI coverage, but that a comprehensive evaluation of this in relation to chronic low back pain, chronic headache and chronic painful osteoarthritis of large joints was required. While SHI may not finance clinical efficacy research, many sickness funds consecutively launched three major acupuncture pilot projects to evaluate the three indications on an ongoing basis.

Once a positive decision has been taken to include a technology into the benefits package of ambulatory physician care, another joint committee at federal level (the Valuation Committee) determines reimbursement issues and requirements for physicians who want to claim reimbursement from the SHI for the delivery of this technology (see section 2.5.3).

Inpatient medical treatment

Until 1999, the introduction of new procedures and technologies was managed by individual hospitals in the context of negotiations with sickness funds or applications for capital investment from the respective *Land* government. In 2000, the then new Committee for Hospital Care was charged with decision-making on hospital coverage based on health technology assessments (see section 2.5.3). In contrast to its counterpart for the ambulatory sector, which decided on benefit inclusions and exclusions, it had to decide only on benefit exclusions. Until 2003 the Committee took only a few decisions, affecting mainly rare services.

In 2004, the responsibility for these tasks was transferred to the Committee for Hospital Care (subsumed in 2008 into the Subcommittee on Methods Assessment) within the new Federal Joint Committee. The Rules of Procedure passed by the Plenary Group of the Federal Joint Committee, and which came into effect in July 2005, replaced the previous rules governing the review of new technologies. Since then, to be introduced to the inpatient sector, new technologies must be evaluated according to the comparatively strict evidence criteria that apply to the ambulatory care sector. However, for the inpatient

sector, the "ban reservation" still applies: that is, hospitals are allowed to use new technologies as long as they are not excluded by the Federal Joint Committee. The introduction of DRGs as a payment system (see section 3.6.1) does not require technology assessment as well. Quite the contrary, if a new diagnostic or treatment technology has not yet been integrated into the DRG system, a hospital may negotiate contracts for extrabudgetary payments to cover the costs of this technology, but only after receiving permission to do so from the German DRG Institute.

2.8 Regulation

2.8.1 Regulation and governance of third-party payers (including SHI benefit package)

The corporatist institutions on the payer side are the sickness funds, which have a key position within the SHI system, as defined by SGB V. They have the right and the responsibility to collect contributions from their members. However, from January 2009 the sickness funds no longer have the authority to determine their own contribution rates; instead, a uniform contribution rate is set by federal law (SGB V). Other responsibilities of the sickness funds include negotiating prices, quantities and quality assurance measures with providers of health care services. The services covered by the resulting contracts are usually accessible to everyone with SHI and do not require prior authorization from an individual's sickness fund. Prior authorization is necessary, however, for preventive spa treatments, rehabilitative services and short-term nursing care at home. If there is any doubt, the sickness funds must obtain an expert opinion on the medical necessity of a given treatment from the SHI Medical Review Board, which is a joint institution of all sickness funds (see section 5.8).

Independent of the status, the amount of contribution paid or the duration of insurance, members and their dependants are entitled to the same benefits. The following types of benefit are currently included in the benefit package, usually in generic terms through Chapter 3 of SGB V:

- prevention of disease, health promotion at the workplace (§§ 20–24b);
- disease screening (§§ 25 and 26);
- treatment of disease (ambulatory medical care, dental care, drugs, care provided by allied health professionals, medical devices, inpatient/ hospital care, nursing care at home, and certain areas of rehabilitative care, sociotherapy) (§§ 27-43b);

- dental prostheses and orthodontics (§§ 55-58);
- emergency and rescue care (§ 60); and
- certain other benefits such as patient information and supporting self-help groups.

While the SGB regulates preventive services and screening in considerable detail (e.g. concerning diseases to be screened for and screening intervals), it leaves further regulations to the Federal Joint Committee.

The Committee has considerable latitude in defining the benefits package for curative diagnostic and therapeutic procedures. The decision-making process concerning coverage is described in more detail in section 2.7.2. All procedures covered in the ambulatory sector are listed in the Uniform Value Scale together with their relative weights for reimbursement (see section 3.6.2). The range of covered procedures is wide, from basic physical examinations in the office to home visits, antenatal care, terminal care, surgical procedures, laboratory tests and imaging procedures including magnetic resonance imaging (MRI).

While benefits for ambulatory physician services are legally defined in generic terms only, one can observe more details in the description of dental – especially prosthetic – benefits in SGB V. One reason was the dysfunction of the Federal Committee of Dentists and Sickness Funds, until 2003 in charge of decision-making on ambulatory dental care concerning benefits, accreditation and quality. The regulation of the Health Insurance Contribution Rate Exoneration Act (*Krankenversicherungsbeitragsentlastungsgesetz*) to remove crown/denture treatment from the benefits package for people born after 1978 (even though they still had to pay the full sickness fund contribution rate) was politically contentious. The Act to Strengthen Solidarity in SHI reintroduced these benefits from 1999. A new legal initiative to exclude dentures from the SHI basket in favour of mandatory co-insurance was modified in 2004 in favour of a "special contribution" of 0.9% to be paid only by employees from July 2005. Dentures thus continue to be part of the benefit basket.

Another sector comprises the therapeutic services of allied health professionals other than physicians, such as physiotherapists, speech and language therapists and occupational therapists. Insured patients are entitled to such services unless they are explicitly excluded by the Federal Ministry of Health, which is currently not the case (§§ 32 and 34 SGB V). According to § 138 SGB V, services provided by allied health professionals may be delivered to the insured only if their therapeutic use following quality assurance guidelines is recognized by the Federal Joint Committee. In the Committee's directive for

care provided by allied health professionals, the conditions for the prescription of these services have been reformed in consultation and cooperation with professional bodies of the respective professional associations, which however have no right to take part in the Federal Joint Committee's final decision-making. The list of services provided by allied health professionals reimbursable by SHI is now linked to indications and therapeutic targets. Non-physician care may be ordered only if a disorder can be recognized, healed or mitigated or if aggravation, health damage, endangerment of children or the risk of long-term care can be avoided or decreased.

As in care provided by allied health professionals, insured are entitled to medical aids, such as prostheses, glasses, hearing aids, wheelchairs or respirators, unless they are explicitly excluded from the benefits package through a negative list issued by the Federal Ministry of Health (see section 2.8.5). In late 1989, the Federal Ministry of Labour and Social Affairs (responsible for SHI at that time) explicitly excluded aids with small or disputed therapeutic benefit or low selling price (e.g. wrist bands), an exclusion that still applies in 2014. Since 2004, visual aids have been excluded from the SHI benefits package for people above the age of 18.

Home nursing care is regulated separately. Mandated by the 2nd SHI Restructuring Act (*2. GKV-Neuordnungsgesetz*), the Federal Joint Committee passed a directive to clarify responsibilities and improve cooperation among the sickness funds responsible for acute home nursing care and the long-term care funds. However, organizational responsibilities and financing obligations are still subject to debate; for example, the Federal Social Court decided that medical aids for recipients of statutory long-term care insurance have to be paid by their statutory sickness fund.

The range of services provided in the hospital sector has traditionally been determined by two factors: the hospital requirement plan of the *Länder* governments and the negotiations between the sickness funds and each hospital. In 2004, DRGs were gradually introduced as the dominant form of payment in hospital care. The transitional phase ended in 2009. Access to and financing of innovative interventions is subject to especially intense debate (see sections 2.7.2 and 3.6.1).

In addition to these benefits in-kind, sickness funds give sick pay to their employed members as 70% of the last gross salary (maximum 90% of net salary) (§§ 44–51) from week 7 up to week 78 of certified illness, while employers continue to pay 100% of the salary during the first six weeks of sickness.

Until 2003, licensing of drugs meant SHI (see section 2.8.4). Further benefits that have been legally excluded from SHI coverage since 2004 include lifestyle medications and all OTC medications with few exceptions, which are defined by the Federal Joint Committee. Since 2004, visual aids (e.g. eye glasses) are no longer subsidized by the sickness funds, with the exception of those for people who are 18 years of age or younger, or for people with severe visual impairment. Transport to ambulatory care is also excluded unless the therapy is necessary and the person in question (1) has a severe physical impairment that limits personal mobility, (2) has been assessed as having a grade II or III need for long-term nursing care, (3) is blind or helpless, or (4) needs transport to and from oncological radiation/chemotherapy, or ambulatory dialysis.

2.8.2 Regulation and governance of providers

Organization

The corporatist institutions on the provider side are required by law to ensure that the geographic distribution and volume of acute medical care services are sufficient to meet the health needs of the population. The clearest examples of such institutions are the regional associations of SHI physicians and dentists, which must guarantee the availability of ambulatory services, ensuring that physicians from all specialities are available according to community needs and are located within a reasonable distance of each individual's home. To meet this service availability requirement, a regional association must negotiate with the sickness funds operating in its particular *Land* and set a prospective budget, which is ultimately allocated between its SHI-accredited members according to nationwide rules that have been adapted to regional circumstances (Fig. 2.1) (see section 3.6.2).

SGB V sets the framework for these negotiations, specifying general categories of benefits and the scope of the areas to be negotiated between the sickness funds and the regional associations of SHI physicians and dentists. These negotiations determine the conditions of remuneration and the specific items in the ambulatory benefits package. As a general rule, both areas are regulated in great detail in the German ambulatory sector, whether through legislation or through negotiations between providers and the sickness funds.

The regional associations of SHI physicians and dentists must deliver the health services that have been defined by law and in contracts with the sickness funds. In doing so, the regional associations guarantee the sickness funds and the insured population that these services meet all legal and contractual requirements. Due to their supervisory and regulatory role, the regional

associations were established as self-governing, quasi-public corporations. This status enhances their ability to influence decisions that generally fall within the clinical freedom of physicians, while at the same time supporting the principles of internal democratic legitimization and self-government. In return for these obligations, the regional associations enjoy a monopoly over the provision of ambulatory care. This monopoly means that hospitals, municipalities, sickness funds and non-physician health professionals are not permitted to provide ambulatory medical care outside the collective contracting agreements, except for purposes mandated by legislation or by joint commissions of payers and providers. Although ambulatory medical care is the classic sector in which the corporatist institutions have the greatest power, these exceptions to the regional associations' monopoly have gradually been expanded in recent years (see section 5.4).

Although the regional associations are obliged to guarantee the availability of ambulatory care services both during and outside normal working hours, since 1997 the responsibility for ensuring the availability of emergency services has been with the *Länder* governments, which have delegated this task primarily to hospitals (see section 5.5).

Because of the absence of corporatist institutions in the hospital sector, hospitals contract individually with representatives of the sickness funds at the regional level, such as the regional associations of sickness funds. Usually, sickness funds participate in the collective negotiations with a hospital if their insured members account for more than 5% of the patients treated there. The conditions regarding the number and scope of services and the remuneration rates are the same for all sickness funds, however.

Quality

In Germany until the end of the 1980s, monitoring of technical and hygienic safety and professional self-regulation (see section 4.2.3) were regarded as sufficient measures to ensure quality of health care. Basic quality requirements as set out in the SGB, the regulatory framework for the German social health insurance system, were limited to hospitals only and served as a means to qualify for reimbursement and to incorporation into the regional hospital requirement plan. However, since the Health Care Reform Act (*Gesundheitsreformgesetz*) of 1989, quality assurance measures are a legal obligation. Through the SHI Reform Act (*GKV-Änderungsgesetz*) of 2000 and the SHI Modernization Act of 2004, the demands placed on quality assurance in hospitals and the ambulatory sector have been fundamentally revised. All of these regulations are based on the concept that the legal directives within SGB V constitute the framework

within which the respective contractual partners have the freedom to make appropriate formal arrangements. In 2007, the Act to Strengthen Competition in SHI increased the competencies of the Federal Joint Committee again by including the mandate to pass directives for quality assurance across sectors, that is, for services provided by both inpatient and ambulatory care providers as well as those where the service is provided in one sector and follow-up in the other.

Quality assurance in the hospital sector

Quality assurance in hospitals has changed substantially since the 1990s, shifting from voluntary activities to obligatory tasks. Requirements for safeguarding quality of processes, and recently of outcomes, have gradually been increased as outlined in the SGB. Quality assurance of processes based on documentation was first introduced in the form of registries in the early 1970s.

In 1996, quality-relevant documentation of case fee (*Fallpauschale*) procedures, associated with the introduction of prospective case fees, became a task to be negotiated by the associations of sickness funds and hospital associations at the state level. Since the *Länder* Chambers of Physicians, previously involved in registry quality measures, were initially not involved, negotiations were delayed and implementation was weak. A federal working group for quality assurance, consisting of sickness funds, regional associations of SHI physicians, the German Hospital Federation, the Federal Chamber of Physicians and the German Nursing Council, sought to improve communication and cooperation in quality initiatives across professional groups and sectors. The working group built an information system on quality projects and organized various meetings but was dissolved in 2004. Its tasks were delegated to the Federal Joint Committee, where decisions on quality assurance can be linked more closely to more powerful instruments of contracts, regulations and reimbursement.

Since 2000, hospitals have been obliged to run internal management programmes and to negotiate contracts with sickness funds on external quality assurance measures that allow for quality comparisons through the standardized documentation of quality indicators. For this purpose, the Federal Office for Quality Assurance (*Bundesgeschäftsstelle für Qualitätssicherung* (BQS)) was established to assist the contract partners in choosing and developing the quality indicators to be monitored, to collect, compile and analyse the data, and to make the findings available to individual hospitals in the form of reports and recommendations. In addition, BQS started to publish annual quality reports on hospitals, which are also available to the public.

The last BQS report for 2008, which was based on data from 1730 hospitals, covered a total of 26 areas, such as obstetrics, transplantation, cardiac surgery, hip and knee replacement, pacemaker implantation, and prevention of pressure ulcers (nursing), assessing these using a total of 206 quality indicators. The evaluation of the findings for the individual areas was performed by the individual expert groups, whose members are appointed by the contract partners in the SHI scheme's system of joint self-government. Hospitals identified as underperforming are required to explain and, if deemed necessary, take appropriate action to improve performance (Bundesgeschäftsstelle Qualitätssicherung, 2009b).

In 2007, the Act to Strengthen Competition in SHI mandated the Federal Joint Committee to commission an institute to support the Committee regarding technical support in developing and carrying-out quality assurance measures across sectors. After an EU-wide tendering process, the AQUA Institute was commissioned in 2009 (for initially five years). It took over from BQS, starting with analysing data from 2010 and publishing annual quality reports based on data from 2009 onwards.

Minimum services volumes were legally enacted for selected hospital services in 2002. Contract partners (i.e. the former federal associations of sickness funds, the German Hospital Federation and the Federal Chamber of Physicians) were required by law to develop a list of elective services in which there is a clear positive relationship between the volume of services provided and the quality of health outcome. For those services, delivery of a predefined minimum volume during the previous year is the condition to become (or to stay) "contractible" and for reimbursement.

In addition, as of 2005, legislation requires hospitals to biyearly publish standardized quality reports. These include structure and process data of the hospital such as number of beds, staffing, type and volume of services provided and medical equipment, as well as documentation of the internal quality management system specific to the individual hospital. The reports are accessible online, enabling the public to search for information on quality by hospital and/or location, although direct comparison is not possible. Since 2007, all hospitals have been required to publish results on 27 selected indicators collected by BQS, thus allowing for a targeted comparison of hospitals (Busse, Nimptsch & Mansky, 2009). In 2011, the Federal Joint Committee decided to enlarge the number of quality indicators on which the hospitals are required to report publicly to 182 from 2012 onwards.

Besides these legally required quality assurance measures, several additional measures have been developed in recent years. For example, the Scientific Institute of the General Regional Funds and Helios Clinics have developed methods allowing them to measure routine data-based quality of hospitals (Quality Assurance Based on Routine Data). Sets of indicators for measuring routine data-based quality (e.g. the German Inpatient Quality Indicators; Mansky et al., 2011) offer the advantage of access to existing data concerning diagnoses, procedures or demographics and thus avoid extra expenses for data collection.

Hospitals may also participate in voluntary quality inspections and certification procedures. The Federal Association of Sickness Funds, Federal Chamber of Physicians, the German Hospital Federation and the German Nursing Council established the Organization for Transparency and Quality in Health Care (*Kooperation für Transparenz und Qualität im Gesundheitswesen*), which since 2002 has served to evaluate quality management in hospitals and improve process and outcomes quality. As part of this procedure, information is gathered on 63 criteria in the areas of patient orientation, staff orientation, hospital safety, information technology, hospital management and quality management. An initiation self-assessment performed by the hospitals themselves is followed by an external assessment. As in previous years, quality requirements have been expanding to other health care sectors and institutions: the Organization for Transparency and Quality in Health Care procedure has been offered to physicians' offices, ambulatory health care centres, rehabilitation institutions, long-term care facilities and hospices since 2011.

Quality assurance in the ambulatory sector

Quality assurance in the ambulatory sector has also progressively been transformed from an initially voluntary task to a legal obligation. This was, in part, prompted by a report in 2000/01 by the Advisory Council for the "Concerted Action in Health Care" Round Table Committee, revealing considerable shortcomings in the quality of health care in the German system, as documented by inappropriate provision of services for those with chronic conditions (Sachverständigenrat für die Konzertierte Aktion im Gesundheitswesen, 2002). From 2000, successive measures to improve the quality of care were introduced, including DMPs, which facilitate the structured treatment of patients with chronic diseases (see section 5.3).

Another measure is the obligation embodied in SGB V to ensure and refine the quality of services in the ambulatory sector. It obliges providers to take part in external quality assurance measures spanning multiple practices in order to improve the quality of outcomes, and to introduce and refine internal

quality management (§ 135a SGB V). The Federal Joint Committee determines the criteria regarding the necessity and quality of medical services, as well as the minimum standards for structural, process and outcome quality. The Committee is also able to define penalties (e.g. reduced remuneration) in cases where providers do not fulfil their quality assurance obligations.

Quality assurance in the ambulatory sector is also characterized by a range of actors at various political levels. In 2006, a directive of Federal Joint Committee came into effect that set requirements for internal quality management in the practices of SHI-accredited physicians, psychotherapists and ambulatory medical treatment centres.

In order to offer special services, mostly invasive procedures or medical imaging, SHI physicians need to fulfil certification requirements, in addition to being licensed as specialists. This is the case for about 30% of services listed in the Uniform Value Scale. Certification is obtained when the surgeries fulfil minimal technical requirements and the physicians have undergone additional training, defined as a minimal number of patients treated under supervision. Organizational requirements are also considered for certification. For example, a binding cooperation agreement with a heart surgery unit within a certain area (measured as time to access) is required to obtain certification for ambulatory percutaneous transluminal coronary angioplasty. Specific certificates are required for arthroscopy, dialysis, pacemaker supervision, ultrasound and laboratory testing, for example. The performance of other services not only requires a specific qualification but also evidence of sufficient experience, indicated as a minimum number of services in the preceding year, for example 200 colonoscopies or 350 percutaneous transluminal coronary angioplasties (Kassenärztliche Bundesvereinigung, 2011).

Recertification is needed in order to remain eligible for sickness fund reimbursement for providing special services within the contracts. Recertification requirements are fixed in the contracts and vary depending on the service in question. The different approaches include minimum volumes of procedures done in a year, or case verification and evaluation of skills (with thresholds for sensitivity, for example). Furthermore, the contracts also include agreements that physicians involve themselves in quality improvement interventions, such as auditing or supervision with significant event reviews. These requirements are defined by the Federal Association of SHI Physicians and are contract items between the sickness funds and the regional associations of SHI physicians.

The regional chambers of physicians are responsible for accreditation and continuing education, and for setting professional standards. Their activities and functions are coordinated at the federal level by the Federal Chamber of Physicians. Maintaining eligibility for reimbursement requires recertification; (re)certification criteria are defined by the Federal Association of SHI Physicians and form part of the contractual arrangements between sickness funds and regional associations of physicians. In 1995, the Federal Chamber of Physicians together with the Federal Association of SHI Physicians founded the Centre for Quality in Medicine (*Ärztliches Zentrum für Qualität in der Medizin*), which is charged with advising and supporting the Federal Association of SHI Physicians in questions related to quality assurance in physician training.

The Federal Association of SHI Physicians has developed a special programme, "Quality and Development in Physician Practices" (*Qualität und Entwicklung in Praxen*) to assist physicians in private practice in the implementation of internal quality management and self-assessment procedures. In 2009, a total of 24 000 physicians and other practice staff took part in the programme. In addition the Federal Association of SHI Physicians offers so-called quality circles, which serves as a forum in which SHI-accredited physicians can exchange experiences with colleagues and engage in reciprocal evaluation. In late 2009, there were 8900 quality circles with a total of 75 000 participating physicians.

The Federal Association of General Regional Sickness Funds (*AOK-Bundesverband*) developed a system of quality indicators for ambulatory care (QISA) in collaboration with the AQUA Institute. These are 130 indicators that are meant to support quality assurance in physician practices and are particularly relevant for GPs.

The federal government, the federated *Länder* governments and the organizations of various health professions have the competences for regulating training and continuous professional development and medical education. The Federal Medical Code regulates basic questions for the practice of physicians in Germany. The Physicians' Approbation Ordinance (*Ärztliche Approbationsordung*) also regulates the basic principles of medical education on a federal level. The federated *Länder* governments set the general rules for medical education. Details are regulated by the medical associations of the *Länder* (see section 4.2.3).

Regulation and needs-based planning of health care providers also follow the federal structure. The chambers of physicians, dentists and pharmacists are required by law to publish statistics on their (mandatory) members

(Bundesärztekammer, 2014). The structure of, and trends in, employment within the health care sector have been documented annually by the Federal Statistical Office since 2003. These data are broken down according to occupational qualifications, place of work, occupational position, gender, and part-time or full-time work (Statistisches Bundesamt, 2013b). The regional associations for physicians and dentists document the structure and qualifications of physicians and dentists who have been accredited to provide care to people covered by SHI (Kassenärztliche Bundesvereinigung, 2014). These data serve as the basis for requirements planning.

2.8.3 Registration and planning of human resources

SHI physicians

According to §§ 99–105 SGB V, needs-based plans have to be developed to regulate the number of SHI-accredited physicians in private practice. Originally, the intention was to guarantee that the less common specialties would also be available in rural areas. Since the 1980s, however, the focus has been on avoiding oversupply. Since 1993, the SGB has stipulated that new practices may not be opened in areas where supply exceeds 110% of the average number for a given specialty; exceptions may only be made in cases where a physician is taking over a registered practice that is "essential" to the provision of care in a particular area. Since the mid-2000s, the discussion about underprovision in rural areas, particularly of GPs, has reoccurred.

The Federal Committee of Physicians and Sickness Funds (now the Federal Joint Committee) developed a directive defining such limits. The directive, in its version up to the end of 2012, classified all planning areas into 1 of 10 groups – ranging from large metropolitan areas to rural counties – and defined the need per group as the actual number of physicians of that group working on average in all counties in 1990, divided by the population. Oversupply was then defined as 110% of that figure. For groups of specialists numbering fewer than 1000, no ratios were defined, meaning that new practices could be opened up freely. Factors such as age, gender, morbidity or socioeconomic status of the population or the supply of hospital beds were not taken into account (only the age structure of the population could be taken into account as a modifying factor since 2010). Based on this definition, the "need" for certain specialties varied widely – up to a factor of nine in the case of psychotherapists – since differences were frozen (for more details, see Busse & Riesberg, 2004).

In early 2010, out of a total of 395 planning areas, none was open for new specialist internist practices, and only four or five (1%) for new radiology, orthopaedic and urology practices. A total of 9 planning areas (2%) were open for new anaesthesiology practices; 15 (4%) for new psychotherapy practices, 17 (4%) for new gynaecology practices, 23 (6%) for new neurology practices, 29 (7%) for new ear, nose and throat (ENT) practices, 30 (8%) for new dermatology practices and 58 (15%) for new ophthalmology practices. However, 204 planning areas were open for family physician practices, meaning that the 100% threshold had not been reached in 52% of all planning areas (Kassenärztliche Bundesvereinigung, 2014). In fact, the density of SHI-accredited physicians varies between metropolitan areas and rural areas. Of the 16 *Länder*, Hamburg has the highest and Brandenburg – a largely rural *Land* surrounding Berlin – has the lowest rate of family physicians and specialists alike.

The SHI Care Structures Act has changed the conditions for needs-based planning considerably (see section 6.1.6). The Federal Joint Committee developed a new directive which came into force in 2013 (Gemeinsamer Bundesausschuss, 2013). In order to better meet the needs of ambulatory care, the basis for calculating needs-based population ratios was restructured according to the level of care and spatial differences. The level of care was differentiated into four categories: (1) family physician care, (2) specialist care, (3) highly specialized care, and (4) separate specialized care. Since it could be assumed that physicians with a higher level of specialization are able to provide services to a larger catchment area, the size of the planning area increased with the level of care. Only population ratios for "normal" specialists were further split into five types that reflected the effects of care in the surrounding areas, while the needs-based ratios for both family physicians and highly and "separate" specialized physicians were assumed as equal across the country (Table 2.6).

Furthermore, the new directive provided a demographic factor that involves differences in population ageing. The needs of people aged 65 and older in a planning area would be determined separately from those under 65. As a result of the new needs-based plans, 3000 family physician practices and 1400 psychotherapy practices can additionally be established.

Table 2.6

Needs-based population ratios, defined as covering 100% of need per specialty, since 2013

	All areas	Type 1 area	Type 2 area	Type 3 area	Type 4 area	Type 5 area
Family physician[a]	1 671					
Specialists						
Ophthalmologists		13 399	20 229	24 729	22 151	20 664
Surgeons		26 230	39 160	47 479	42 318	39 711
Gynaecologists[b]		3 733	5 619	6 606	6 371	6 042
Dermatologists		21 703	35 704	42 820	41 924	40 042
ENT physicians		17 675	28 921	33 102	31 938	31 183
Neurologists/psychiatrists		13 745	28 921	33 102	31 938	31 183
Orthopaedists		14 101	22 298	26 712	26 281	23 813
Psychotherapists		3 079	7 496	9 103	8 587	5 953
Urologists		28 476	45 200	52 845	49 573	47 189
Paediatricians[c]		2 405	3 587	4 372	3 990	3 859
Highly specialized physicians						
Anaesthetists	46 917					
Specialized internists (e.g. in cardiology, endocrinology)	21 508					
Child and youth psychiatrists	16 909					
Radiologists	49 095					
Separate specialized physicians						
Physicians for human genetics	606 384					
Laboratory physicians	102 001					
Neurosurgeons	161 207					
Nuclear medicine	118 468					
Pathologists	120 910					
Rehabilitation medicine	170 542					
Radiotherapists	173 576					
Transfusion physicians	1 322 452					

Source: Based on data from Gemeinsamer Bundesausschuss, 2014.
Notes: [a]Includes general practitioners, practitioners, physicians without any specialist qualification, and family internists; [b]Ratio refers to female population; [c]Includes family paediatricians and specialist paediatricians and the ratio refers to population under age 18.

Allied health professionals

The conditions for independent health care professionals other than physicians – such as physiotherapists or speech and language therapists – to be reimbursed for treating SHI-covered patients are regulated by the SGB and details are delegated to the Federal Joint Committee (see section 2.5.3); § 124 SGB V regulates the accreditation of SHI providers, who must fulfil certain prerequisites (training, practical experience, practice equipment, contractual agreements) if they want to participate in the care of the insured.

Hospital personnel

To better plan nurse staffing in hospitals (see section 5.4.1) an interesting instrument was included in the Health Care Structure Act of 1992, namely the introduction of nursing time standards, through which a daily documentation of nursing activities put every patient in one of nine categories with a standardized required nursing time between 52 and 215 minutes per day. The total number of minutes per ward and per hospital could be calculated into the nursing staff needed by the unit. Nursing time standards were introduced to end a period of perceived nursing shortages, on the assumption that new jobs would be created. However, the 2nd SHI Restructuring Act abolished the regulation for the official reason that the standard had led to almost 21 000 new nursing positions between 1993 and 1995, when the law-makers had anticipated only 13 000. The Hospital Financing Reform Act (*Krankenhausfinanzierungsreformgesetz*) of 2009 introduced a programme for improving inpatient nursing in hospitals. A total of 21 000 additional nursing positions were to be created between 2009 and 2011, 70% of which would be financed by the sickness funds.

2.8.4 Regulation and governance of pharmaceuticals

When looking at the regulation of pharmaceuticals, two steps have to be clearly separated: (1) licensing (i.e. market access), which is determined to a large degree by EU regulation transposed into national law, and (2) the national decision about coverage (i.e. reimbursement by the SHI scheme).

Licensing of pharmaceuticals

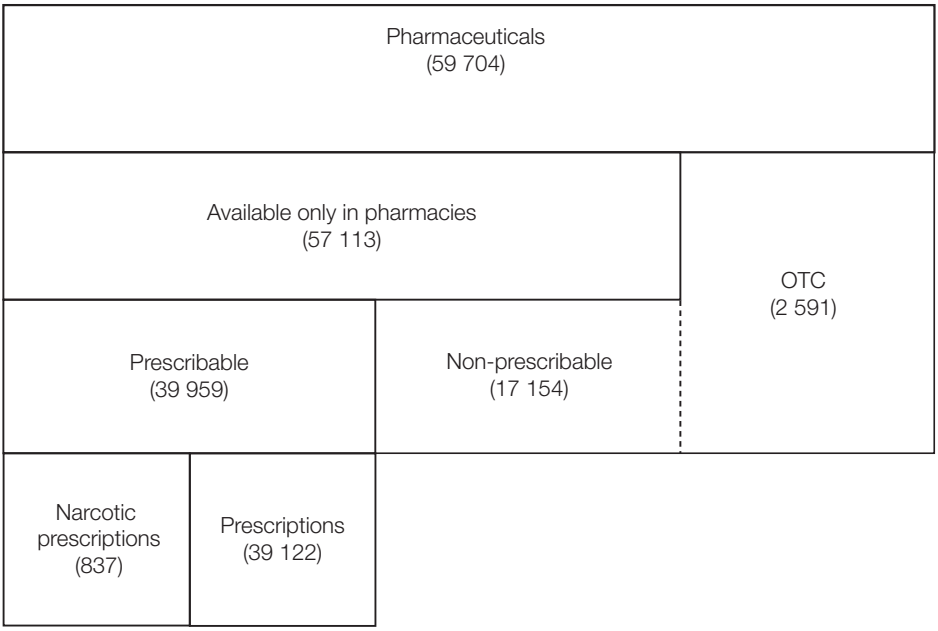
Licensing for new drugs became mandatory only with the Pharmaceutical Act (*Arzneimittelgesetz*) of 1976 (effective from 1978), after it became clear that a significant proportion of drugs were of unproved effectiveness, and is the most regulated area of medicine in Germany. The admission of pharmaceuticals for humans on to the market is the responsibility of the Paul Ehrlich Institute (blood, blood products, sera and vaccines) and the Federal Institute for Pharmaceuticals and Medical Devices (all other drugs). This national regulation applies provided that the medication has not yet been approved by the central authorization procedure of the European Medicines Agency (formerly the European Agency for the Evaluation of Medicinal Products), which allows approval in all Member States of the EU.

In Germany, approvals are awarded separately for different doses and modes of application, as a result of which in 2010 there were nearly 60 000 preparations in the market (Fig. 2.3). In 2010, the “Rote Liste” contained 8500 preparations, of which 2000 preparations represent 90% of the SHI prescriptions. In 2010,

80% of the preparations on the "Rote Liste" were chemically defined substances, 8% herbal medicinal products, 8% homoeopathics and 4% other drugs (Verband der forschenden Pharma-Unternehmen, 2011).

Fig. 2.3

Number of pharmaceuticals in the German market and its segments, 2010



Source: Bundesinstitut für Arzneimittel und Medizinprodukte, 2010.
Note: OTC: Over the counter.

The criteria for licensing pharmaceuticals are scientifically proven safety and efficacy. This includes a stepwise testing in studies with healthy humans (phase I and II) and controlled clinical trials in people affected by the target disease (phase III). Based on the EU-wide standard on "good clinical practice" (directive 2001/20/EG of the European Parliament and Council and directive 2005/28/EG of the European Commission), an extensive formalization and documentation of study procedures is required. However, only a marginal beneficial effect needs to be demonstrated with a small sample in order to fulfil the efficacy criteria, and cost–effectiveness is of no importance. This has led to the admission of active substances that are merely minor modifications rather than real product innovations. Licensing is, in any case, limited to five years, after which an application for an extension is required.

Besides regular admission, an accelerated admission process is also possible, intended for drugs that generate considerable public interest on the basis of their potential therapeutic value but lack sufficient data to judge their therapeutic efficacy. In such cases, it can be decreed that within a certain period data should be systematically collected on the drug's efficacy in order to reappraise its therapeutic value. However, this procedure is very rarely adopted.

The accelerated licensing procedure for orphan drugs (those used to treat very rare diseases) is more often used, and since 2000 may only be initiated at the European Medicines Agency. The mutual recognition procedure is an increasingly used strategy for approval, in accordance with EC directive 75/319, which came into effect in Germany on 1 January 1995. Based on this directive, a manufacturer whose drug has been admitted in another country may also apply for the drug's admission to Germany, which may only be refused by the Federal Institute for Pharmaceuticals and Medical Devices if a public danger exists. In this case, the European Medicines Agency enforced arbitration would be initiated, and eventually the situation would be adjudicated by the European Commission.

Homoeopathic and anthroposophic drugs are exempted from the licensing procedures under the Pharmaceutical Act and are subject to registration only. Registration requirements refer mainly to the quality of the basic products and the manufacturing process as well as to the durability of the final products. Registered homoeopathic drugs do not need to prove their therapeutic efficacy unless they are to be licensed for a specific purpose. In this case, a manufacturer has to apply through the regular admission procedure. The characteristics of the admission of homoeopathic and anthroposophic drugs, and fixed combinations of phytotherapeutics, are regulated explicitly by the Ministry of Health. An exception to this are prescription drugs produced and sold in pharmacies in quantities of up to 100 units per day and homoeopathic drugs produced in quantities of less than 1000 units per year.

Market admission is not linked to obligatory comprehensive and systematic postmarketing surveillance. However, physicians and other professionals are requested to report problems they or their patients encounter with drugs and medical devices to the Federal Institute, which is required to maintain a database of all side-effects, contraindications and other drug problems. Records are assessed by medical, pharmacological and toxicological experts and forwarded to the European Medicines Agency and other international pharmaceutical authorities. There is a phased plan according to which appropriate actions are taken depending on the seriousness of the problem. In the most serious case, the market licence can be withdrawn.

Coverage/SHI reimbursement of pharmaceuticals

Unlike many other countries, Germany does not have a "positive list" of SHI-covered (i.e. reimbursable) pharmaceuticals. The Health Care Structure Act of 1992 had included a mandate for a positive list to be developed by the Federal Ministry of Health. This regulation, however, was dropped only weeks before it was supposed to be put into effect on 1 January 1996. The Federal Minister of Health decided not to pursue the idea of a positive list and justified this by citing the successful cost-containment measures in the pharmaceuticals sector, the otherwise rising costs for patients with chronic conditions making OTC purchases and, most importantly, the threat to smaller pharmaceutical companies. While this decision was welcomed by the pharmaceutical industry, it was criticized by both the sickness funds and the Social Democratic Party. The SHI Reform Act of 2000 again introduced the mandate for a positive list, which the Federal Ministry of Health, supported by an expert commission, consequentially submitted to the Federal Council (*Bundesrat*) at the end of 2002. However, the opposition, with a majority in the Federal Council, threatened to reject the proposal. Following opposition and government negotiations for the SHI Modernization Act, the Ministry's mandate for compiling a positive list was withdrawn again.

Until 2003, market entry for most drugs meant SHI coverage, but there were a few important exceptions that were gaining attention.

- Drugs for "trivial" diseases (common colds, drugs for the oral cavity with the exception of antifungals, laxatives and drugs for motion sickness) are legally excluded from the benefits' package for insured over 18 years (§ 34(1) SGB V).
- Inefficient drugs, that is, those not effective for the desired purpose or combined more than three drugs the effect of which cannot be evaluated with certainty, could be excluded by the Minister of Health under SGB V rules. The evaluation of these drugs takes into account the peculiarities of homoeopathic, anthroposophic and phytotherapeutic drugs. A negative list according to these principles came into effect on 1 October 1991, has been revised several times and as of October 2003 contained about 2400 drugs.
- Coverage of drugs was also regulated in the pharmaceutical directive of the Federal Committee of Physicians and Sickness Funds (replaced as of 1 January 2004 by the Federal Joint Committee), which is legally binding and limits the prescription of some drugs to certain indications (e.g. anabolics to cancer patients), specifies that they may only be used after failed non-pharmaceutical treatments or, in a few cases, disallows any prescription on the account of sickness funds (e.g. drugs to stop smoking).

Since 2004, the SHI Modernization Act has brought substantial changes to the coverage by adding two other groups of excluded drugs.

- So-called lifestyle drugs have been legally excluded from the benefit basket. The Federal Joint Committee is responsible for defining the exact extent of this regulation in its pharmaceutical directive.
- OTC drugs may no longer be reimbursed by sickness funds except for children below the age of 12. The task to define exceptions to this general exclusion has also been delegated to the Federal Joint Committee, which lists OTC drugs and the indications for which they may be prescribed in its pharmaceutical directive.

Another issue that has received increased attention is the prescription and SHI coverage of drugs for off-label use, raising concerns about access to innovations as well as pharmacovigilance and liability. Generally, drugs not licensed at all for the German pharmaceutical market or not licensed for the respective indication may not be prescribed by any physician except under clinical trial conditions. Sickness funds may not fund clinical research and may basically not cover prescriptions of unlicensed drugs or for unlicensed indications. Since 2007, the Act to Strengthen Competition in SHI has allowed off-label use for patients with serious illnesses in cases where the therapy can be expected to lead to an improvement, the benefits reasonably justify the additional costs, the treatment is conducted by an SHI-accredited provider and the Federal Joint Committee does not object to the treatment (see section 5.6.4).

2.8.5 Regulation of medical devices and aids

When looking at the regulation of medical devices, two steps again have to be clearly separated: (1) licensing (i.e. market access), which is determined to a large degree by European regulation transposed into national law, and (2) the national decision about coverage (i.e. reimbursement) by the SHI scheme.

Registration (licensing) of medical devices

Since 1 January 1995, the Medical Devices Act (*Medizinproduktegesetz*), transposing EU directives into German law, has been in effect. In compliance with EU directives 90/385 (concerning active implant devices such as pacemakers), 98/79 (in vitro diagnostic devices), and 93/42 (medical products other than those active implant devices), devices marketed in Germany must meet the requirements of the Medical Devices Act. In contrast to drugs, medical devices are defined as instruments, appliances, materials and other products that do not produce their main effect in a pharmacological, immunological or metabolic way.

The licensing of medical devices is the responsibility of authorized institutions ("notified bodies"), which require accreditation through the Federal Ministry of Health. The safety and of technical suitability of a device are the primary criteria for their market admission. In contrast to drugs, medical devices do not need to prove that they are beneficial in terms of potential health gain in order to be marketed. Devices marketed in Germany are reviewed for safety and for whether they technically perform as the manufacturer claims (Wörz et al., 2002).

The EU Medical Devices Directive 93/42 established a four-part classification system for medical devices. The rules for classification take into account the risk associated with the device, its degree of invasiveness and the length of time it is in contact with the body. A device's classification determines the type of assessment the manufacturer must undertake to demonstrate conformance to the relevant directive's requirements. Coverage decisions about medical devices and mechanisms to steer their diffusion and usage differ depending on whether they are used directly by patients ("medical aids") or as part of medical or surgical procedures in the ambulatory or hospital sector.

Coverage/SHI reimbursement of medical devices and medical aids

Decisions concerning the reimbursement of medical aids under SHI differ depending on the purpose and the sector of the utilization, that is whether (1) it is utilized by the patient him- or herself as a prescribed medical aid; (2) it is utilized as part of a medical or surgical procedure (e.g. implants), with differences in inpatient and ambulatory care; or (3) it concerns medical devices that can provide various services (see section 2.7.2).

Diffusion and usage of medical aids and prostheses is regulated by the Federal Joint Committee, which issues directives that limit the prescription of medical aids to the following cases: assuring the success of medical treatment, prevention of threatened health damage, preventing the health endangerment of a child, and avoidance or reduction of the risk of long-term care.

Medical devices can only be reimbursed by SHI if they are included in the Catalogue of Medical Aids (*Hilfsmittelverzeichnis*) of the Federal Association of Sickness Funds, which also regulates the quality requirements for these products in particular. Manufacturers can file a request for inclusion of a medical aid in the Catalogue of Medical Aids at the Federal Association of Sickness Funds with proof of the necessary quality requirements and, when indicated, its benefit. The Federal Association of Sickness Funds finally decides

on the inclusion of the medical aid in the Catalogue. Although the Catalogue of Medical Aids has a regulating effect, the sickness funds have no legal obligation to reimburse the cost for listed medical aids.

Since 2004, the Federal Association of Sickness Funds has also been responsible for selecting the medical aid and prosthesis types that could be submitted to reference prices and for defining the price limits. Until the end of 2004, reference prices were set at the *Land* level and varied accordingly. Sickness funds reimburse the cost of covered medical aids up to the reference price for the specific type of aid, and physicians have to inform patients that they are required to pay costs beyond a reference-price limit for the respective type of medical aid or prosthesis.

In the wake of the Act to Strengthen Competition in SHI, since April 2007 sickness funds and their associations have been able to issue tenders for contracts with manufacturers of medical aids if doing so improves economic efficiency and quality of care. If this does not take place, the contract partners conclude contracts on the details of care related to medical aids and make public their intention to conclude a contract. Sickness funds and the manufacturers of medical aids are permitted to reach individual agreements if a contract for a needed medical aid does not exist according to the above-mentioned criteria, or if care cannot be provided in a reasonable way (§ 127 SGB V). In all three types of agreement, the price of the medical aid may not exceed the reference price set by the Federal Association of Sickness Funds, in so far as a reference price exists.

Expensive medical devices

Agreements upon the diffusion of expensive medical devices ("big ticket technologies") and their distribution between the ambulatory and hospital sector has been called a "never ending story". This judgement is the result of various attempts of corporatist and legislative bodies to improve planning of expensive medical devices in the light of increasing costs and new device types such as extracorporeal shockwave lithotripsy.

Until 1982, when the Hospital Cost-containment Act (*Krankenhaus-Kostendämpfungsgesetz*) came into effect, no regulations concerning expensive medical devices existed. With this law, it became mandatory for expensive devices to be subject to hospital planning. Devices that were not part of an agreement could not be considered in the per diem charges and consequently could not be refinanced. In contrast, notification to the relevant regional

association of SHI physicians was sufficient for expensive devices in the ambulatory care sector. This unequal situation remained essentially unchanged until the Health Care Reform Act of 1989.

Between 1989 and 1997, regional distribution of expensive medical equipment for the SHI-covered population was controlled intersectorally by *Land*-level committees consisting of representatives of the hospitals, regional associations of SHI physicians, sickness funds and a *Land* representative, who negotiated aspects of the joint use of devices by third parties, service requirements, population density and structure, as well as the operators' qualifications.

After the Health Care Structure Act of 1993, the Minister of Health could determine which devices fell under the auspices of the committees but did not do so, and the committees defined expensive medical equipment on their own. On 30 June 1997, the following devices fell within this definition in almost all *Länder*: left heart catheterization units, computer-tomographs, MRI devices, positron-emission tomographs, linear accelerators, tele-cobalt-devices, high-voltage therapy devices and lithotripters. The 2nd SHI Restructuring Act abolished the committees (effective July 1997); the self-governing bodies were then obliged to guarantee the efficient use of expensive equipment via contracting and remuneration regulations. In effect, this has led to even steeper increases in the number of expensive medical devices (at least in the hospital sector for which data are available), since previous site-planning procedures have been annulled (see section 4.1.3).

2.8.6 Regulation of capital investment

Since the Hospital Financing Act (*Krankenhausfinanzierungsgesetz*) of 1972, hospitals are financed by two different sources: "dual financing" means financing investments through the *Länder* (see section 4.1.1) and running costs through the sickness funds, plus private health insurers and self-pay patients (see section 3.6.1). In order to be eligible for investment costs, hospitals have to be listed in the hospital requirement plans set by the *Land*. These plans also list the specialities that are necessary, and even the number of beds per specialty for every hospital. The number of hospitals and beds is planned at a trilateral committee consisting of representatives from *Land* government, hospitals and sickness funds.

Investments are in principle covered through taxes and are, therefore, not contained in the reimbursement. Investments in long-term assets require a case-by-case grant application and are classified as construction of hospitals and initial procurement or replacement of other assets. In addition, hospitals

receive an annual flat-rate grant for short-term assets (3–15 years economic life); the grant amount is determined by the size of the hospital and the development of costs. Hospitals are free to spend these grants as they choose on the purchase of short-term assets and minor construction projects. According to the Hospital Financing Act, a hospital acquires a legal claim to subsidy only as long as it is included in the hospital requirement plan of the *Land*. The inclusion in the hospital requirement plan means, on the one hand, that there is a claim to the above-mentioned flat-rate grant and, on the other, that the sickness funds have to finance the hospital care provided by the hospital.

It is noteworthy that listed hospitals do not have a right to have the financing of specific investments secured. That depends also on the budgetary situation of the responsible ministry and on political decisions. Should a hospital not be included in the hospital requirement plan, it still has the possibility to contract with sickness funds but no claim to state investment financing. Hospitals not fully publicly subsidized can, within a very narrowly defined framework, refinance investment costs via sickness fund reimbursement (Wörz & Busse, 2004).

The Hospital Financing Reform Act of 2009 stipulates that investments in hospitals included in the hospital requirement plans are to be financed as of 2012 by performance-based flat-rate grants rather than the mix of case-by-case grants and (non-performance-based) flat-rate grants described above. If a *Land* chooses to remain with the current case-by-case system, however, it may do so. In order to identify the need for investment for inpatient and outpatient care, the lump sum investment promotion is calculated at a national uniform investment valuation ratio and a federal state uniform investment case value (see section 3.6.1).

2.9 Patient empowerment

2.9.1 Patient information

The majority of people in Germany still regard their family physician, as well as family members and friends, as their primary sources of information on personal health and the health care system. Nevertheless, a growing number of information materials and counselling services are being made available to patients free of charge, usually by the various stakeholders in the health care sector. These offerings can take the form of written publications, telephone services, personal counselling or, increasingly, Internet content. Through

these sources, patients can generally obtain high-quality information on health conditions, options for self-care, patient rights, health care reforms, the benefits offered by different sickness funds, the premiums of private insurers and the services and quality of health care providers. In addition, the media are increasingly reporting on issues related to health and health care.

Patient information is also made available by health care providers. Hospitals included in the state-level hospital requirement plans, for example, are obliged by law (SGB V § 137) to publish quality reports every two years (see section 2.8.2). Publishing the relevant quality indicators helps to increase transparency in the health care sector. Moreover, hospitals may participate in voluntary quality inspections conducted by the Organization for Transparency and Quality in Health Care.

The Citizens Advice Bureau forms another important source of information for patients. Publicly financed and politically independent, they offer consumer protection advice on many issues, including those related to health. There is one in each of Germany's 16 *Länder*. They also evaluate the quality and cost of medical services, advocate patient-friendly arrangements in the health care sector and sponsor legislation to protect patients. Other institutions that play an active role in patient advice services are the peer-review committees and arbitration boards of the professional chambers of physicians and dentists, the patient counselling services of the various professional chambers, patient safety organizations, self-help groups and the patient helplines of the sickness funds.

2.9.2 Patient choice

Patients in Germany generally have free choice of physicians. Individuals with private insurance or paying out of pocket have access to all licensed health providers except when this is precluded by contractual limitations. Individuals covered by SHI may choose freely among ambulatory care physicians who have been accredited by the sickness funds to treat SHI-covered patients (i.e. some 98% of all ambulatory care physicians in Germany). Patients may also choose freely among hospitals that have been contracted by the sickness funds; the beds in these hospitals represent 99% of all hospital beds in the country. Limitations that apply to patients' free choice of physicians are the lower physician-to-population ratio and greater travel times in rural areas, especially in the eastern part of the country (Wörz, Babitsch & Busse, 2006; Riesberg & Wörz, 2008).

Since 2009, all residents in Germany are required to have statutory health and long-term care insurance or at least equivalent coverage through a PHI plan. Patients who are eligible for coverage through the SHI system have virtually

free choice of sickness funds and, in general, may switch sickness funds after an 18-month waiting period. Individuals covered by SHI are free to take out supplementary health insurance offered by private insurance companies. Individuals with PHI may also choose freely among private health insurers. Switching from one private insurance company to another has been made easier since the possibility was introduced in 2007 to have active life reserves transferred from an old to a new insurer.

Sickness funds are obliged to contract with all eligible applicants regardless of income or health status. Since January 2009, private health insurers have been obliged to offer a policy (the so-called *Basistarif*) covering services equivalent to those offered by SHI and at a price not exceeding the maximum contribution within the SHI system; applicants may not be rejected based on factors such as income or health status. Risk selection, however, is still permissible for the other health insurance plans offered by these companies.

Patients in need of long-term care have free choice of their care provider based on the principle of self-determination. Recipients of statutory long-term care may choose to receive in-kind benefits, cash benefits or a combination of the two. If in-kind benefits are chosen, long-term care is delivered by a professional provider who bills the long-term care funds directly for services delivered. Those who choose cash benefits must make their own care arrangements and are responsible for ensuring that these are of adequate quality. In certain cases, cash and in-kind benefits (e.g. related to rehabilitative services) are also available from other payers, such as the workers' compensation funds or the institutions that administer the statutory scheme of retirement insurance. In practice, this multiplicity of payers has frequently resulted in onerous application procedures and fragmented service provision (see section 5.8).

Since January 2008, however, individuals have had the right to receive the cash equivalent of in-kind benefits combined into a single payment known as a "personal budget". (The in-kind benefits provided by the long-term care funds are a much-criticized exception to this rule, as these may be substituted only by vouchers rather than cash.) Instead of contacting multiple payers to apply for benefits, individuals opting for the personal budget need only apply – at least in theory – with one payer, who subsequently coordinates all further administrative procedures. Because the idea of the personal budget is to strengthen individuals' right of choice, individuals may use the cash benefits they receive in this manner to contract service providers and make purchases at their own discretion. To date, however, very few individuals have taken advantage of this option.

2.9.3 Patient rights

In 1994 the WHO launched *A Declaration on the Promotion of Patients' Rights in Europe*, which defined the self-determination of the patient as a fundamental right. In addition, the *Charter of Fundamental Rights of the EU* was officially proclaimed in 2000 and made legally binding by the Treaty of Lisbon, which entered into force on 1 December 2009. Article 35 of the Charter is entitled "Health care" and stipulates that "[e]veryone has the right of access to preventive health care and the right to benefit from medical treatment under the conditions established by national laws and practices. A high level of human protection shall be ensured in the definition and implementation of all Union policies and activities."

Until 2013, there was no specific piece of legislation summarizing patient rights in a clear and comprehensive fashion across the various jurisdictions in Germany. Individual patient rights were based on the Basic Law and were enshrined in a range of federal legislation, including the Social Code (social rights), the Civil Code (especially tort law, product safety and other consumer protection) and the Penal Code. A patient charter introduced in 2002 was developed by patient representatives, physicians, hospitals, sickness funds, private insurance companies, charity organizations, self-help groups and the Citizens Advice Bureaux in addition to the state ministries dealing with the areas of health and justice. The charter aimed to make existing legislation pertaining to health and health care more transparent for patients, describing patient rights with regard to counselling, medical care and informed consent, and focusing on the expectations, rights and duties of patients and physicians. In summary, patients in Germany have the right to:

- choose their physician and hospital freely;
- seek a second opinion;
- receive qualified and judicious medical treatment according to recognized standards of medical practice;
- determine the type of treatment they should receive and the extent of this treatment;
- use sign language or other communication aids if necessary to interact with their physician and have the cost covered by their sickness fund;
- insist that all medical procedures be performed only with their legal consent;
- obtain individual advice from their sickness funds about insurance benefits;
- be treated with pharmaceuticals or medical products that satisfy the legal quality and safety requirements;

- receive timely, face-to-face information about a proposed treatment;
- receive a written record of their most important diagnoses and treatments;
- view their own medical records and have copies made of them at their own expense;
- have their patient data treated with confidentiality; and
- receive compensation in the event of medical error, lack of informed consent, or injury caused by pharmaceuticals or medical devices.

In February 2013, the parliament passed the Patients' Rights Act (*Patientenrechtegesetz*). This general law on patient rights bundles several existing jurisdictions and gives detailed regulations (e.g. for complaint procedures; see sections 2.9.4 and 6.1.7).

There is also a Charter of Rights for People in Need of Long-term Care and Assistance, which is based on the work of the Round Table on Long-term Care (*Runder Tisch Pflege*) initiated in the autumn of 2003 by the Federal Ministry of Family Affairs, Senior Citizens, Women and Youth and the Federal Ministry of Health. Some 200 representatives from different fields of geriatric care participated in the various working groups. The Charter contains eight articles on the following areas:

- self-determination and support for self-help
- physical and mental integrity, freedom and security
- privacy
- care, support and treatment
- information, counselling and informed consent
- communication, esteem and participation in society
- religion, culture and beliefs
- palliative support, dying and death.

2.9.4 Complaints procedures (mediation, claims)

In the wake of the Patients' Rights Act in 2013 mandatory complaint management systems were being introduced in the German hospital sector. Although complaint management systems are not obligatory for other health care sectors, they are used by a range of institutions and health service providers as part of their quality management programmes.

At the state level, the professional chambers of physicians, dentists and pharmacists are urged to establish complaint systems and arbitration boards for the extrajudicial resolution of medical malpractice claims. An ombudsperson is responsible for arbitrating disputes between patients and companies that offer private health and long-term care insurance, and for addressing the needs of patients and individuals with disabilities.

Patients harmed by negligent actions on the part of health care providers or manufacturers of pharmaceuticals or medical devices have the right to compensation according to tort law. They may address their complaints free of charge to the above-mentioned arbitration boards, which are staffed by independent physicians and lawyers. Sickness funds also support patients through the SHI Medical Review Board, which provides counselling and can draft expert reports to help resolve malpractice claims.

Physicians, dentists, psychotherapists, pharmacists and other professionals in ambulatory care are bound by professional codes of conduct. In all German *Länder*, these codes of conduct require physicians and psychotherapists to take out liability insurance (except in Saxony-Anhalt, which allows physicians to prove that they have an equivalent form of security). With the exception of Thüringen, dentists are also required to take out liability insurance or, in some cases, prove that they have equivalent coverage. The situation for pharmacists varies from *Land* to *Land*. Although institutional providers are responsible for compensating patients in cases of medical malpractice, the law does not stipulate which financial precautions these institutions must take. Naturally, many hospitals and long-term care institutions take out liability insurance as well. An increasing number of them, however, cannot – or are unwilling – to shoulder the rising premiums for liability insurance on their own. An increasing number of institutional providers are thus forgoing liability insurance altogether and sharing risk through fund arrangements with other hospitals.

In addition to general tort law, there are several special laws governing medical malpractice claims under certain circumstances, such as injury from severe previously unknown adverse effects of pharmaceuticals or vaccination, HIV transmission through untested blood products (only in people infected before 1989 and claims filed by 1995), or for participants in clinical trials. Affected people must prove that their injury resulted from negligence.

2.9.5 Public participation

Since the mid-1990s, organizations representing the interests of self-help groups, consumers, disabled individuals and patients have gained increasing influence in the decision-making bodies of the SHI system. Aside from membership in a sickness fund itself, three forms of collective participation in the decision-making process may be distinguished in Germany: the right to be heard (*Anhörungsrecht*), the right to participate (*Mitwirkungsrecht*), and the right of co-determination (*Mitbestimmungsrecht*). These rights may be exercised on a regular basis, as well as at short notice. Collective participation in the decision-making process can be dictated by legislation or set forth in organization by-laws, or it can exist as a matter of accepted practice.

In the case of the several decision-making bodies within the SHI system, patient participation has been regulated by the SHI Modernization Act since January 2004. These include the Federal Joint Committee, the Advisory Board of the Working Group for Data Processing and Transparency, the State Committees of Physicians and Sickness Funds (which serve an advisory role in physician requirement planning), the accreditation committees (which decide on the accreditation of physicians and psychotherapists to deliver services to SHI-covered patients), and the appeals committees (which hear appeals from physicians whose applications for accreditation have been rejected). The main representatives of patients in these decision-making bodies are defined by the Patient Participation Ordinance of December 2003 as the German Disability Council, the Federal Alliance of Patient Centres and Initiatives (*Bundesarbeitsgemeinschaft PatientInnenstelle*), the Federal Association of Consumer Centres (*Verbraucherzentrale Bundesverband*; includes Citizens Advice Bureaux and Consumer Organizations), and the German Alliance of Self-help Groups (*Deutsche Arbeitsgemeinschaft Selbsthilfegruppen*). These organizations are independent and not associated with particular political parties. They nominate qualified individuals to participate in decision-making, particularly in the nine subcommittees of the Federal Joint Committee. At least half of these individuals must be patients or ex-patients themselves. Voting generally takes place on a monthly basis through a coordinating group (Hundertmark-Mayser & Möller, 2004).

Patient representatives have a right to be heard when the Federal Association of Sickness Funds is deciding upon topics related to financial support for self-help groups and organizations (SGB V § 20c); framework agreements for preventing dental disease in children and the disabled (§ 21(2)); general recommendations for hospital treatments (§ 112); general recommendations for consistently applying accreditation standards for medical service providers

(§ 124(4), § 126(1)); the regionally balanced provision of treatment such as physical therapy, ergotherapy, speech therapy (classified in German as *Heilmittel*, which literally means "remedies") (§ 125(1)); and regulations related to reference prices for medical aids (§ 36(1–2)).

Patient organizations may also make use, at any time, of their right to be heard in the decision-making of "gematik" (*Gesellschaft für Telematikanwendungen der Gesundheitskarte* (Organization for Telematics Applications of the Health Card)), a limited liability company established by health care providers and the sickness funds in 2005 to develop and maintain the new electronic health card (eGK) and its underlying information infrastructure. The right to be heard for patients' organizations also applies to the Federal Assembly (*Bundestag*), albeit with some limitations (e.g. participation may not take place before the second reading of a bill in the plenary).

Although not dictated by legislation, patient organizations are involved in a range of other institutions and initiatives, including the Federal Association for Prevention and Health Promotion (*Bundesvereinigung Prävention und Gesundheitsförderung*), the project gesundheitsziele.de (promoting national health objectives), the health-reporting activities of the Robert Koch Institute, and the German Institute of Medical Documentation and Information. Patient organizations also play a role at the state and local levels, especially in the *Gesundheitskonferenzen* (literally, "health conferences"), which are local committees with representatives from a variety of actors in the health care sector. They meet regularly and provide local and state governments with health reports and recommendations on how to improve health care delivery.

2.9.6 Patients and cross-border health care

In general, access to cross-border care is regulated by Regulation (EEC) 883/2004 and is subject to the individual regulations of the different *Länder*. Since the SHI Modernization Act came into effect on 1 January 2004 in Germany, for example, all people covered by SHI may receive planned ambulatory care in another country of the European Economic Area or in Switzerland without prior authorization from their sickness fund. However, in the case of ambulatory care without prior authorization, the sickness fund only covers the cost of treatment to at least the same extent as if it had been provided in Germany.

German patients must seek prior authorization for inpatient treatment (except emergency care) from their sickness fund using form E112. The application may not be declined if the treatment in question is part of the SHI benefits

package in Germany and the patient is unable to receive this treatment locally within an acceptable time frame. Treatment is provided under the terms of the country in which the patient receives the treatment, and patients receive full reimbursement from their sickness fund.

To date, only limited data are available on cross-border care for residents of Germany. One important source is the Flash Barometer 210 (*Cross-border health services in the EU*; European Commission, 2008). According to the survey, a total of 4% of EU citizens received medical treatment outside their national borders in 2007. Germany ranks just slightly above this average, with 5% of its citizens having received such treatment. Only 40% of respondents in Germany said they would be willing to travel abroad for medical treatment, compared with an average of 53% among all EU citizens. Such willingness decreased with advancing age and was lower among respondents with lower educational attainment.

According to the survey, individuals are motivated by a variety of factors to obtain treatment elsewhere in the EU. In Germany, among those who said they would be willing to travel to another EU Member State for medical treatment, 82% indicated that they would do so to receive treatment that is not available at home, 71% to receive better quality treatment than at home, 70% to receive treatment from a renowned specialist, 61% (considerably more than the EU average) to receive cheaper medical treatment, and 50% (considerably less than the EU average) to receive treatment more quickly than at home.

Of the respondents who said they would not be willing to travel to another EU country to receive medical treatment (58% of all respondents), a full 92% indicated that their satisfaction with the German health care system was a deterring factor.

Finally, when asked if they thought they were entitled to receive medical treatment in another EU Member State and be reimbursed by their sickness fund, 67% of respondents in Germany replied in the affirmative, which is only slightly below the EU average (70%) (European Commission, 2008).

Table 2.7 shows data on the use of health care services in German hospitals between 2000 and 2004 by patients whose place of residence was in another EU Member State while Table 2.8 contains information on German patients who received medical treatment in another EU Member State. Because various sources and data collection methods were used, some data in both tables are heterogeneous and of only limited value for European comparisons.

Table 2.7

Number of patients from other EU Member States who received hospital treatment in Germany 2000–2004, and resulting cost (2005)

EU Member State	Total No. patients					Cost in 2005 (€)
	2000	2001	2002	2003	2004	
Austria	3 572	3 658	3 502	4 698	4 499	30 984 407
Belgium	2 768	3 002	3 007	3 271	3 254	10 828 199
Cyprus	23	22	23	41	51	3 719
Czech Republic	378	382	439	442	497	1 070 837
Denmark	676	977	1 307	1 160	1 119	704 832
Estonia	12	20	21	21	30	57 115
Finland	52	59	43	30	36	953 786
France	4 251	4 368	4 559	4 556	4 816	16 388 152
Greece	903	773	629	702	736	11 138 014
Hungary	358	433	334	372	357	674 338
Ireland	113	116	98	116	113	135 702
Italy	2 649	2 149	2 081	2 128	1 941	19 259 066
Latvia	58	40	43	62	52	247 136
Lithuania	131	118	96	121	145	390 982
Luxembourg	1 344	1 427	1 704	1 572	1 759	34 326 207
Malta	23	15	17	19	25	3 718
Netherlands	5 329	5 981	6 650	7 042	6 886	12 306 920
Poland	2 382	2 549	2 263	2 633	2 876	14 073 220
Portugal	466	338	319	325	348	2 254 531
Slovakia	91	75	83	85	112	203 776
Slovenia	73	82	60	78	107	299 911
Spain	917	1 021	1 011	1 026	1 096	57 115
Sweden	512	538	541	547	588	2 387 287
United Kingdom	1 290	1 232	1 698	1 264	1 594	7 452 083
Total	**28 371**	**29 375**	**30 528**	**32 311**	**33 037**	**178 744 650**

Source: van Ginneken & Busse, 2011.

Table 2.8

Number of German patients who received medical treatment in another EU Member State, and resulting cost (2005)

EU Member State	Number of bills[a]	Cost (€)
Austria	137 264	44 373 999
Belgium	15 818	5 401 132
Czech Republic	13 371	1 232 945
Denmark	7 114	1 328 372
Estonia	65	3 360
Finland	871	632 700
France	135 553	69 435 586
Greece	21 947	4 157 951
Hungary	104	123 139
Italy	44 529	19 475 759
Liechtenstein	160	35 249
Lithuania	37	10 105
Luxembourg	517	836 784
Malta	119	49 849
Netherlands	11 709	9 499 489
Poland	3 646	1 537 794
Portugal	7 799	1 150 654
Slovakia	285	33 672
Slovenia	2 535	1 274 461
Sweden	3 834	2 737 851
Switzerland	17 430	24 679 804
United Kingdom	2	22 265
Total	**483 200**	**203 119 611**

Source: van Ginneken & Busse, 2011.
Note: [a]The data refer not only to forms E112 and E111 but also to all patients who received treatment pursuant to Articles 93 and 96 of Council Regulation (EEC) No 574/72.

3. Financing

3.1 Health expenditure

Germany spends a substantial amount of its wealth on health care. According to the Federal Statistical Office, which provides the latest available data on health expenditure, total health expenditure was €300.4 billion in 2012. This corresponds to 11.4% of GDP. Total health expenditure as share of GDP recorded the highest increase between 2008 and 2009 (from 10.7% to 11.7%), which can be explained by the strong rising of health care expenditure and simultaneously decreasing GDP (see section 1.2).

The health expenditure calculation is based on the OECD System of Health Accounts. The way of collecting data is similar; however, the figures reported by the Federal Statistical Office, OECD and WHO vary occasionally. The figures on health expenditure presented in Table 3.1 refer to the latest OECD data (year 2011).

According to OECD data, real growth of per capita health expenditure in Germany averaged 2.1% annually between 2000 and 2009. Per capita health expenditure grew at an average of 4.1% annually among all OECD countries during this period, which is relatively high considering average yearly GDP growth rates. When interpreting these data, it is important to keep in mind that some countries with comparatively high rates of growth in health expenditure, such as Slovakia (10.9%) or Korea (9.3%), had very low expenditure in the 1990s. In contrast, expenditure in Germany or France was already high, and in the last years of that period was subject to diverse cost-containment measures. Against the background of the global economic crisis and compared with all other OECD countries except Japan and Israel, Germany's per capita health expenditure growth did not decrease and kept constant between 2009 and 2011 (3.2%). The OECD average during this period was 0.2% (OECD, 2013a).

According to WHO, which has lower estimates for health care expenditure, Germany ranked at fifth place (11.1% of GDP) among European countries in 2011, just behind the Netherlands (12.0%), France (11.6%), the Republic of

Table 3.1
Trends in health care expenditure, 1995–2011

	1995	2000	2005	2006	2007	2008	2009	2010	2011
Total expenditure on health care									
In current prices (€ billions)[a]	186.9	212.8	240.4	246.0	254.2	264.4	278.4	287.3	293.8
In current prices per capita (US$ PPP)	2 276	2 678	3 362	3 567	3 722	3 967	4 225	4 338	4 495
As share of GDP (%)	10.1	10.4	10.8	10.6	10.5	10.7	11.7	11.6	11.3
Public expenditure on health care									
As share of total expenditure on health care (%)	81.4	79.5	76.6	76.5	76.4	76.6	76.9	76.8	76.5
As share of GDP (%)	8.2	8.3	8.3	8.1	8.0	8.2	9.0	8.9	8.7
Private expenditure on health care									
As share of total expenditure on health care (%)	18.6	20.5	23.4	23.5	23.6	23.4	23.1	23.4	23.5
As share of GDP (%)	1.8	2.1	2.5	2.5	2.5	2.5	2.7	2.7	2.7
Out-of-pocket payments for health									
As share of total expenditure on health (%)	10.0	11.4	13.5	13.7	13.6	13.3	13.0	13.2	12.4
As share of private expenditure on health (%)	54	56	58	58	58	57	56	56	53

	1995–2000	2001–5	2006–10	2009–11
Mean annual growth rate in total health expenditure (%)	2.3	1.4	2.7	2.8
Mean annual growth rate in GDP (%)	1.8	0.8	1.4	4.6

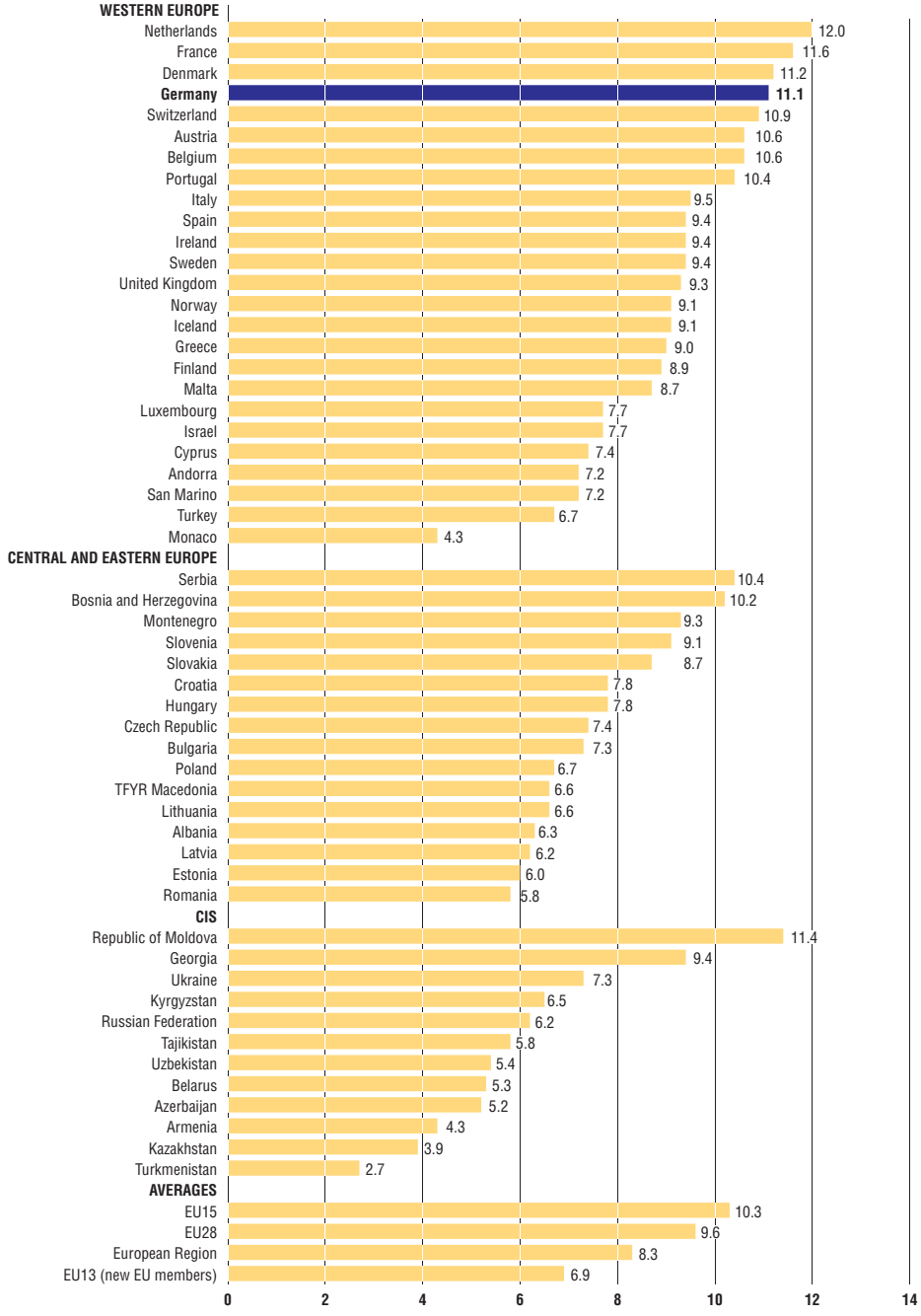
Sources: OECD, 2013a (data up to 2011); [a]Statistisches Bundesamt, 2014b.
Note: PPP: Purchasing power parity.

Moldova (11.4%), and Denmark (11.2%), and followed by Switzerland, Austria and Belgium. The EU15 average was 10.3% and new EU Member States 6.9% (Fig. 3.1).

Until 1996, Germany showed steady growth in health expenditure as a share of GDP, reaching 10.4%. In 1997, health expenditure decreased slightly, by 0.2%, only to increase again, reaching 10.8% in 2003. In 2008, health expenditure fell somewhat to 10.4% and reached a historical high of 11.6% in 2009 (Fig. 3.2). The figure shows that Germany had the highest level of health expenditure as a share of GDP in the group of selected European countries (France, United Kingdom, Netherlands, Austria and Switzerland) during the mid-1990s, before it was surpassed by Switzerland and France. Since 2009, health expenditure in Switzerland has been lower than that in Germany while expenditure in the Netherlands increased and is higher than Germany. Because of the increasing expenditure in other countries, the gap between the German value and the EU15 average has more than halved since 1995 (from 1.5 percentage points to 0.8 percentage points in 2011).

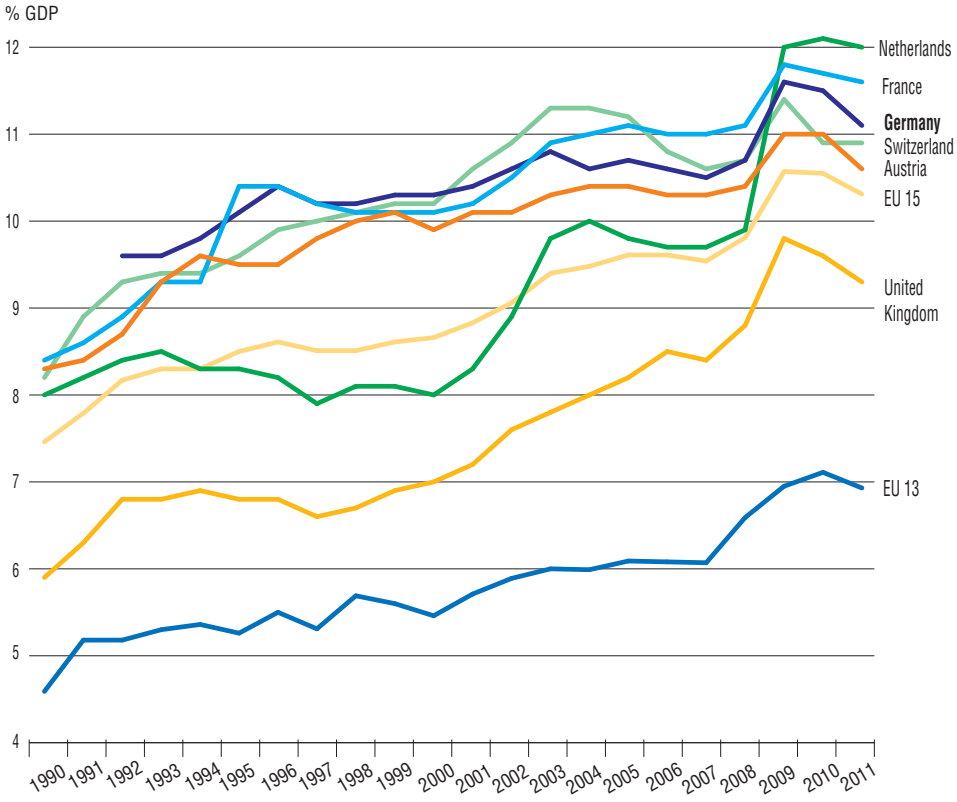
Fig. 3.1

Health expenditure as percentage of GDP in the WHO European Region, 2011 or latest available year



Source: WHO Regional Office for Europe, 2013.
Notes: CIS: Commonwealth of Independent States; TFYR Macedonia: The former Yugoslav Republic of Macedonia.

Fig. 3.2
Trends in health expenditure as a percentage of GDP in Germany and selected countries, 1990–2011 or latest available year



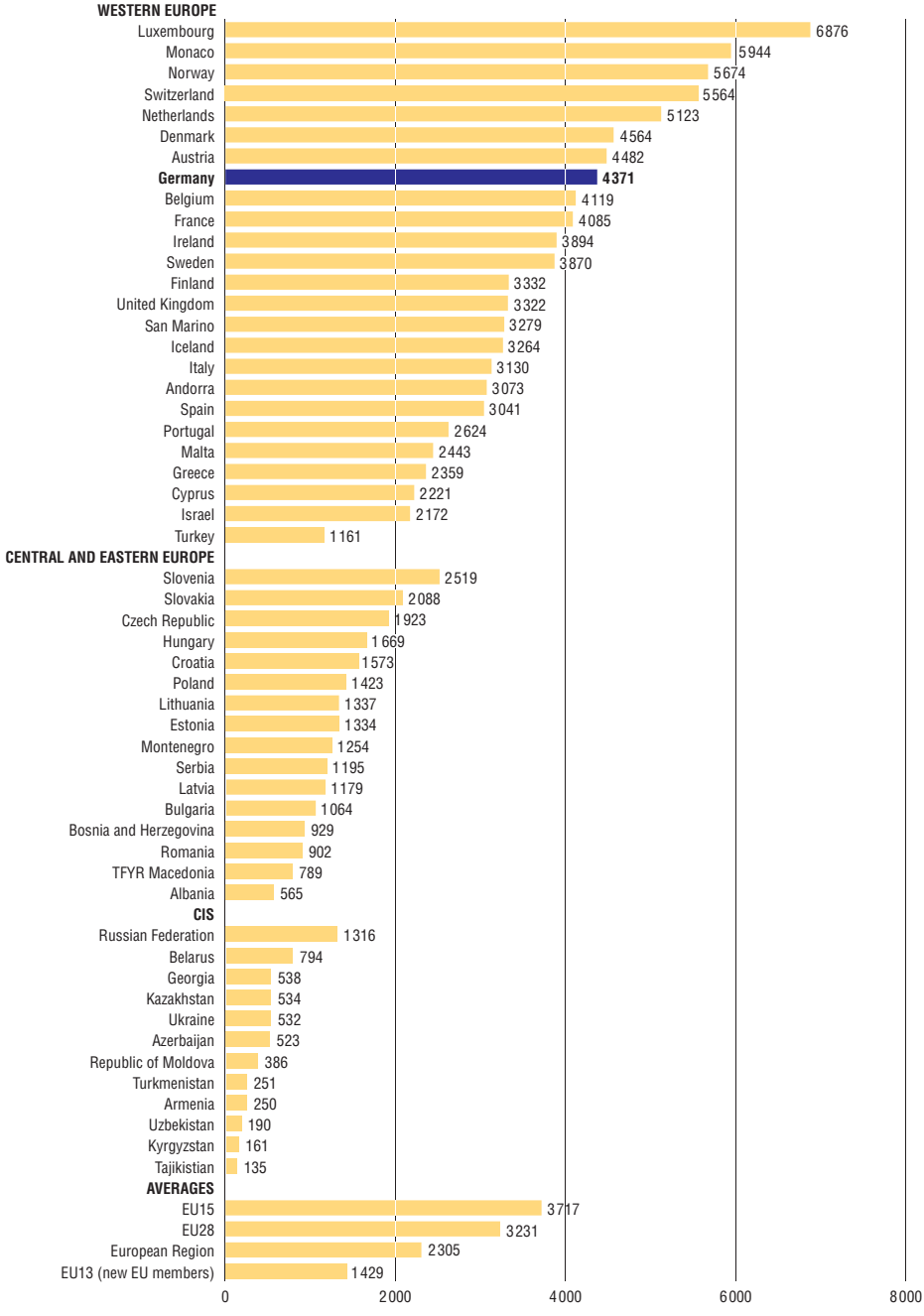
Source: WHO Regional Office for Europe, 2013.

In terms of per capita health expenditure measured in US$ purchasing power parity, Germany's expenditure in 2011 (US$ 4371) was higher than the EU15 average of US$ 3717, but much smaller than those of Luxembourg, Monaco, Norway, Switzerland and the Netherlands – and just behind Denmark and Austria. Germany ranked eighth among all western European countries (Fig. 3.3).

The public share of total health expenditure, including governmental and various social insurance sources, increased from 76.2% to 81.7% between 1990 and 1995, which particularly reflected the introduction of new benefits as part of the statutory long-term care insurance. Since 1995, the public share of total health expenditure has decreased, reaching 76.5% in 2011 (OECD data; Table 3.1) and 75.9% (WHO data; Fig. 3.4). This trend reflects a relative increase of private sources and a decrease in tax spending. Between 1995 and 2011, the

Fig. 3.3

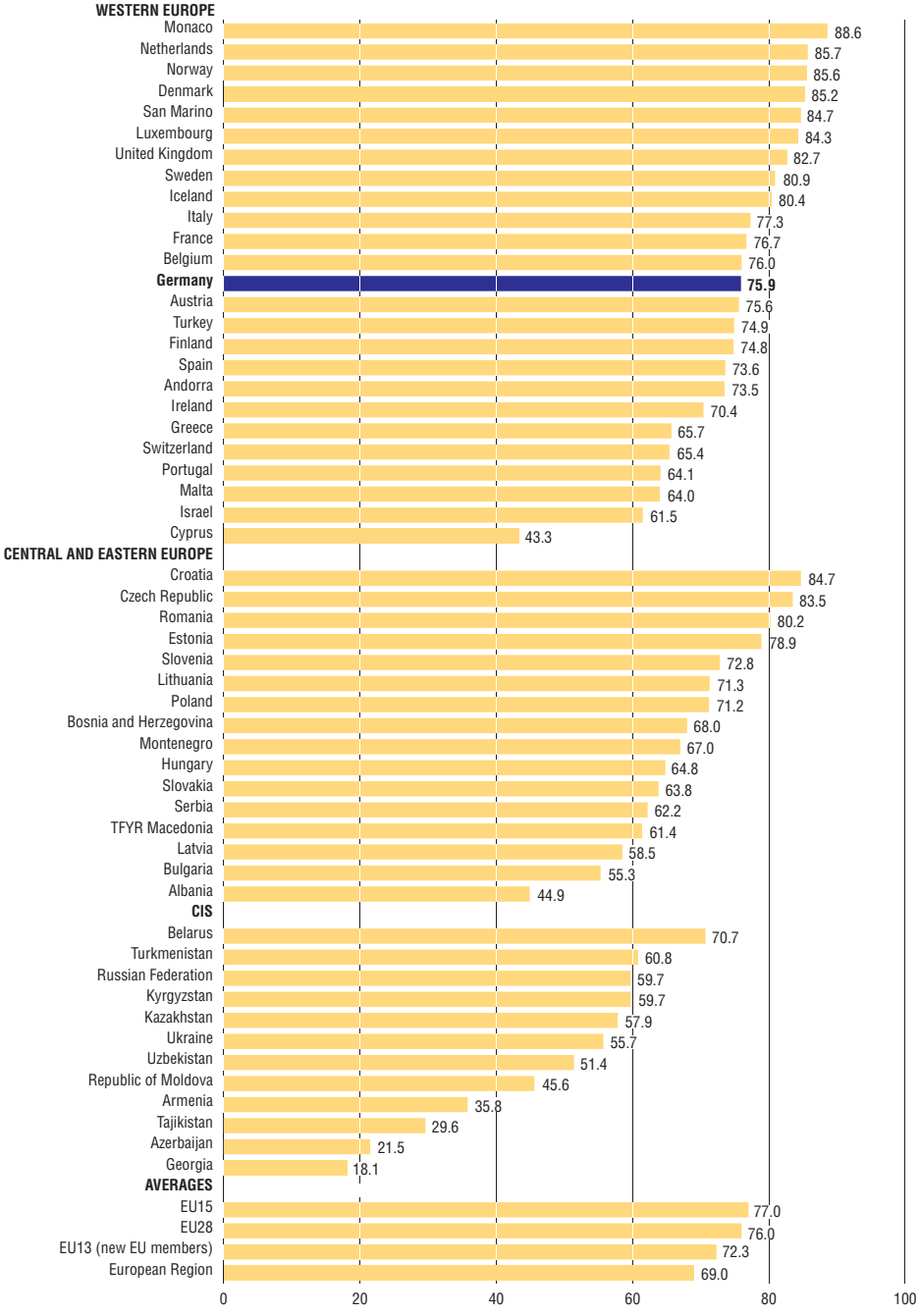
Health expenditure in US$ purchasing power parity per capita in the WHO European Region, 2011 or latest available year



Source: WHO Regional Office for Europe, 2013.
Notes: CIS: Commonwealth of Independent States; TFYR Macedonia: The former Yugoslav Republic of Macedonia.

Fig. 3.4

Public sector health expenditure as a percentage of total health expenditure in the WHO European Region, 2011 or latest available year



Source: WHO Regional Office for Europe, 2013.
Notes: CIS: Commonwealth of Independent States; TFYR Macedonia: The former Yugoslav Republic of Macedonia.

private share of health expenditure rose from 18.3% to 23.5% (OECD data) and 24.2% (WHO data). According to German national data (see Table 3.3 below), the public share of total health expenditure in 2010 was 72.9%, some 4 percentage points lower than that reported by the OECD (76.8%, Table 3.1) or WHO (75.9%, Fig. 3.4). Depending on the source, Germany, therefore, occupies a position in the middle or in the lower half with regard to the public share of funding in international comparisons.

In the context of the overall economy, indicated as a share of GDP, the largest increase of public spending on health care occurred in the early 1990s. Since 1995, public expenditure on health has remained stable at around 8.2% of GDP, but did increase to 9.0% in 2009 (Table 3.1).

A large part of health care expenditure in Germany can be attributed to the SHI system (see section 3.2). Between 1996 and 2008, SHI expenditure developed largely in line with GDP. Increases above GDP growth were observable especially in the periods 1995–1996, 2001–2003, 2005, 2008 and particularly 2009. The decrease in GDP and concurrent increase in SHI expenditure in 2009 marked that year as the one with the clearest increase. The opposite (i.e. an increase below GDP growth) was observed in 1993, 1997, 2004, and 2011 (i.e. in the first years of the major health care reform acts).

Expenditure on ambulatory care increased in the early 1990s but decreased between 1996 and 2005. Since then expenditure has continued to increase. In 2009, expenditure on ambulatory care reached a peak, decreasing slightly again in 2010 and 2011. Expenditure for acute hospitals was highest in 1998 and decreased as % of GDP until 2007; after that it has increased to even higher levels (Table 3.2). However, in international comparison, spending on acute hospital care is relatively low because of the strong ambulatory care sector offering almost all medical specialties (Stapf-Finé & Schölkopf, 2003).

As a share of GDP, SHI expenditure on pharmaceuticals has gone sharply down (between 1992 and 1994), slowly up (until 1996), down again (in 1997), slowly but increasingly fast up (until 2003), and finally (in 2004) down again – because of new regulations on co-payments and the OTC exclusion from the SHI benefit basket under the SHI Modernization Act. However, since then, expenditure has increased again and in 2005 the SHI expenditure as a share of GDP already exceeded that in 2003. The decline from 1.17% in 2009 to 1.13% in 2010 is mainly attributable to the fact that the manufacturers rebate for prescription-only drugs and drugs without reference price was raised from 6% to 16% in mid-2010 (see section 5.6.4).

Table 3.2

SHI and total health expenditure by institution as a percentage of GDP, 1996–2012

	1996	1998	2000	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
SHI														
Total[a]	**6.19**	**5.99**	**6.01**	**6.20**	**6.27**	**5.95**	**6.06**	**6.02**	**5.99**	**6.06**	**6.68**	**6.64**	**6.50**	**6.52**
Inpatient institutions	2.41	2.42	2.37	2.36	2.35	2.34	2.37	2.36	2.29	2.29	2.54	2.54	2.54	2.56
Acute hospitals	2.27	2.29	2.23	2.23	2.23	2.23	2.26	2.25	2.18	2.19	2.43	2.45	2.44	2.46
Ambulatory institutions	3.27	3.08	3.14	3.31	3.37	3.08	3.15	3.13	3.18	3.23	3.56	3.47	3.37	3.36
Physician offices	1.15	1.12	1.11	1.12	1.15	1.07	1.06	1.07	1.09	1.11	1.24	1.19	1.18	1.17
Dentist offices	0.53	0.49	0.47	0.47	0.47	0.44	0.39	0.40	0.39	0.38	0.41	0.40	0.39	0.39
Pharmacies	0.91	0.87	0.93	1.05	1.06	0.93	1.06	1.03	1.06	1.07	1.17	1.13	1.04	1.02
Rescue and emergency providers	0.08	0.08	0.08	0.09	0.09	0.09	0.10	0.10	0.10	0.09	0.11	0.11	0.11	0.11
Administration[b]	0.35	0.34	0.35	0.37	0.38	0.37	0.37	0.35	0.35	0.34	0.38	0.40	0.38	0.38
Outside the country	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.03	0.04	0.05	0.05
Total health expenditure														
Total	**10.39**	**10.24**	**10.30**	**10.64**	**10.80**	**10.56**	**10.67**	**10.55**	**10.40**	**10.50**	**11.56**	**11.50**	**11.33**	**11.36**
Inpatient institutions	3.81	3.80	3.82	3.86	3.87	3.87	3.90	3.88	3.79	3.79	4.16	4.17	4.14	4.17
Acute hospitals	2.75	2.79	2.73	2.73	2.73	2.74	2.77	2.75	2.67	2.67	2.95	3.00	2.96	2.98
Ambulatory institutions	4.92	4.83	4.89	5.13	5.26	5.08	5.14	5.11	5.14	5.24	5.74	5.66	5.56	5.56
Physician offices	1.49	1.48	1.49	1.53	1.57	1.56	1.57	1.57	1.59	1.61	1.78	1.73	1.71	1.70
Dentist offices	0.80	0.73	0.72	0.72	0.74	0.74	0.68	0.68	0.68	0.67	0.72	0.70	0.70	0.71
Pharmacies	1.32	1.35	1.37	1.49	1.51	1.41	1.55	1.50	1.50	1.50	1.67	1.64	1.53	1.51
Rescue and emergency providers	0.09	0.10	0.10	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.13	0.12	0.13	0.13
Administration[b]	0.59	0.61	0.61	0.65	0.67	0.65	0.65	0.63	0.61	0.61	0.66	0.67	0.65	0.64
Outside the country	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.06	0.07

Source: Data based on Statistisches Bundesamt, 2014b.
Notes: [a]Excluding cash benefits; [b]Includes expenditure of payers, expenditure of providers are part of reimbursement for health services/products and expenditure of patient organizations or governmental agencies are not included (except disease management administration, which is paid by sickness funds)

3.2 Sources of revenue and financial flows

In Germany, SHI is the major source of financing health care, covering 70 million people or 85% of the population in 2012 (see section 3.3). A total of 9.0 million people or 11% took out PHI, which includes about 5% as civil servants (including retired civil servants and their dependants) with free governmental care and private insurance policies covering the remainder (see section 3.5). Furthermore, 4% of the population was covered by other, sector-specific governmental schemes (military, people on substitutional service, police, social welfare and assistance for immigrants seeking asylum).

3.2.1 Sources of revenue

Although SHI dominates the German discussion on health care expenditure and reform(s), its actual contribution to overall health expenditure was only 57.4% in 2012 (Statistisches Bundesamt, 2014b; Table 3.3; Fig. 3.5). The other three pillars of social insurance contributed an additional 10.7% of total health expenditure: statutory retirement insurance with 1.4% (mainly for medical rehabilitation), statutory insurance for occupational accidents and disease with 1.6%, and statutory long-term care insurance with 7.7%. Governmental sources contributed another 4.8%. Altogether, public sources accounted for 72.9% of total expenditure on health. Private sources accounted for 27.1% of total expenditure. Among them, private households financed 13.5% (figures include expenditure by nongovernmental organizations, which is negligible). Private insurers financed 9.3%, which includes expenditure for substitutive/comprehensive health insurance, complementary health insurance as well as long-term care insurance. Employers paid 4.3%: ironically this "private" expenditure is mainly for expenses reimbursed by public employers for their civil servants and may explain discrepancies between German and international sources regarding the size of the private share of total health care expenditure.

The most distinct change since 1990 was the introduction of long-term care insurance in 1993. This led to a decrease in the share of health expenditure financed through taxes, which had amounted to 10.8% in 1996 (Table 3.3). SHI expenditure remained relatively stable as a share of GDP, with only slight decreases attributable, in particular, to reforms that led to the exclusion of benefits or increased co-payments (1997 and 2004). Altogether, this led to a fall in public expenditure of just 4.3 percentage points between 1996 and 2012.

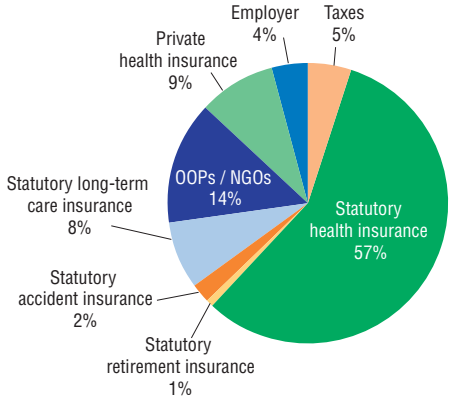
Table 3.3

Sources of finance as a percentage of total finance, 1996–2012

Source	1996	1998	2000	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Public sources	77.2	75.3	75.5	75.2	74.6	73.1	73.1	73.0	73.0	72.9	73.0	72.9	72.6	72.9
Taxes	10.8	8.1	7.9	7.8	7.8	6.0	5.7	5.5	5.2	5.0	4.9	4.8	4.8	4.8
Statutory health insurance	57.4	56.7	56.9	56.9	56.7	56.3	56.8	57.0	57.5	57.5	57.8	57.6	57.3	57.4
Statutory retirement insurance	2.4	1.7	1.8	1.7	1.8	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4
Statutory accident insurance	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6
Statutory long-term care insurance	4.9	7.0	7.2	7.0	6.9	7.5	7.5	7.4	7.3	7.3	7.3	7.5	7.5	7.7
Private sources	22.8	24.7	24.5	24.7	25.4	26.9	26.9	27.0	27.0	27.1	27.0	27.1	27.4	27.1
Out-of-pocket payments/nongovernmental organizations	11.3	12.6	12.2	12.2	12.3	13.6	13.5	13.6	13.5	13.4	13.5	13.6	13.7	13.5
Private health insurance	**7.3**	**7.8**	**8.2**	**8.4**	**8.6**	**9.1**	**9.2**	**9.2**	**9.3**	**9.5**	**9.3**	**9.3**	**9.4**	**9.3**
Employer	4.2	4.2	4.1	4.1	4.1	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.3	4.3

Source: Statistisches Bundesamt, 2014b.

Fig. 3.5
Main sources of finance as a percentage of total health expenditure, 2012



Source: Statistisches Bundesamt, 2014b.
Notes: OOP: Out of pocket; NGO: nongovernmental organization.

An increase in expenditure was seen during this period among private payers; half of this increase was attributable to out-of-pocket payments, while the other half was borne by private insurance companies. Most of the payments made out of pocket did not involve formal co-payments but rather the purchase of services that were not part of the SHI benefits package (see section 3.4). Finally, the increase of expenditure by private insurance companies may be attributed to a growing number of individuals with private insurance and the above-average growth of expenditure per insured individual (see section 3.5).

Taxes are used for various purposes in the health care system. All tax-based budgets, at federal as well as *Länder* level, are determined by legislatures acting on proposals from their governments.

On the federal level, health care-related financing is part of the budgets of the Ministries of Health, Defence (military health care), Interior (police officers and permanent public employees) and Education and Research. At the *Länder* level, health care financing mainly flows from the budgets of the ministries of health (especially capital investment for hospitals and public health services) and Science (investment in university hospitals and medical and dental training). The municipalities are also important sources of taxes in the health care system.

Taxes as a source of health care financing have decreased throughout the last decade, falling from 10.8% in 1996 to 4.8% in 2012 (Table 3.3). The most substantial decrease was observed in spending on long-term care (about 50%), reflecting the relief of municipal budgets after the introduction of statutory long-term care insurance (see section 5.8), but other spending (e.g. on investments) has been decreased as well.

The Hospital Financing Act of 1972 introduced the dual financing principle in the acute hospital sector, which means that investment costs are financed out of taxes from *Land* and federal level and that running costs are paid by the sickness funds or private patients (who may be reimbursed by private health insurers). In order to be eligible for investment, hospitals have to be listed in the hospital requirement plans set by the *Länder*, independent of ownership. Through this mechanism, public hospitals and owners of private non-profit or private for-profit hospitals receive tax money for investments in their hospitals as long as these investments are according to the hospital requirement plans and as long as money allocated for this purpose is available (see section 3.6.1).

Other purposes include free governmental health care schemes for police, military, young people on substitutional service, prisoners, immigrants seeking asylum and recipients of social welfare. Since 2004, all recipients of social welfare who are not insured elsewhere, and some of the immigrants seeking asylum, have to choose a sickness fund and have the same rights and duties as other insured. Municipalities do not pay contributions on behalf of the recipients of social welfare but reimburse sickness funds for health care services that were actually delivered to the individual.

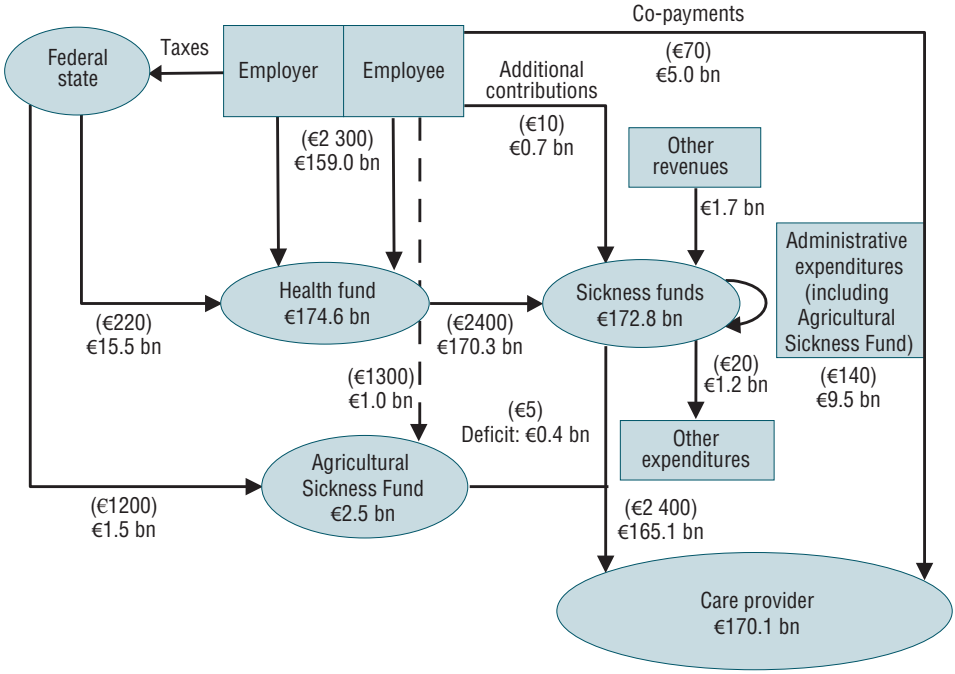
Meanwhile, the largest tax-financed item is not declared as such in the fiscal statistics – the subsidies for SHI. With the exception of subsidies for artists and the farmers' sickness funds (*Landwirtschaftliche Krankenkassen*), sickness funds did not receive any tax subsidies until 2003. Since then sickness funds have received a fixed amount from the federal budget for several benefits relevant to family policies: maternity benefits, sick pay for parents caring for sick children, in vitro fertilization, sterilization for contraceptive purposes, prescription-only contraception up to the age of 21, and legal abortions (2004 to 2008, €1 billion, €2.5 billion, €4.2 billion, €1.5 billion and €2.5 billion, respectively). The federal government transfers its subsidy to the Central Reallocation Pool (see section 3.3.3). Originally, the subsidy was supposed to be increased successively from €7.2 billion in 2009 to €11.8 billion in 2010, €13.3 billion in 2011 and €14 billion in 2012. However, in 2008, an additional grant of €2.3 billion was made, and the subsidy for 2010 was increased by €3.9 billion, thus amounting to €15.7 billion. For 2011, this level was almost kept (€15.3 billion) but decreased in the following years because of the comfortable financial situation of the SHI system – to €14.0 billion in 2012, €11.5 billion in 2013 and €10.5 billion in 2014 (the last figure according to the budget plan of the Ministry of Finance, which also foresees a slight increase to €11.5 billion for 2015).

Though coming from general taxation, these sums were included as "SHI" in health expenditure statistics. Otherwise, the share of taxes on total health expenditure would be up to 10% and the expenditure by SHI accordingly lower.

3.2.2 Financial flows

Fig. 3.6 shows the financial flows within the system of SHI in detail – including the rounded total health expenditure and the expenditure per insured for 2010. This form of presentation again emphasizes that the share of tax-financed health expenditure is much higher than the recognized share of 5%.

Fig. 3.6
Financial flows in the SHI, 2010

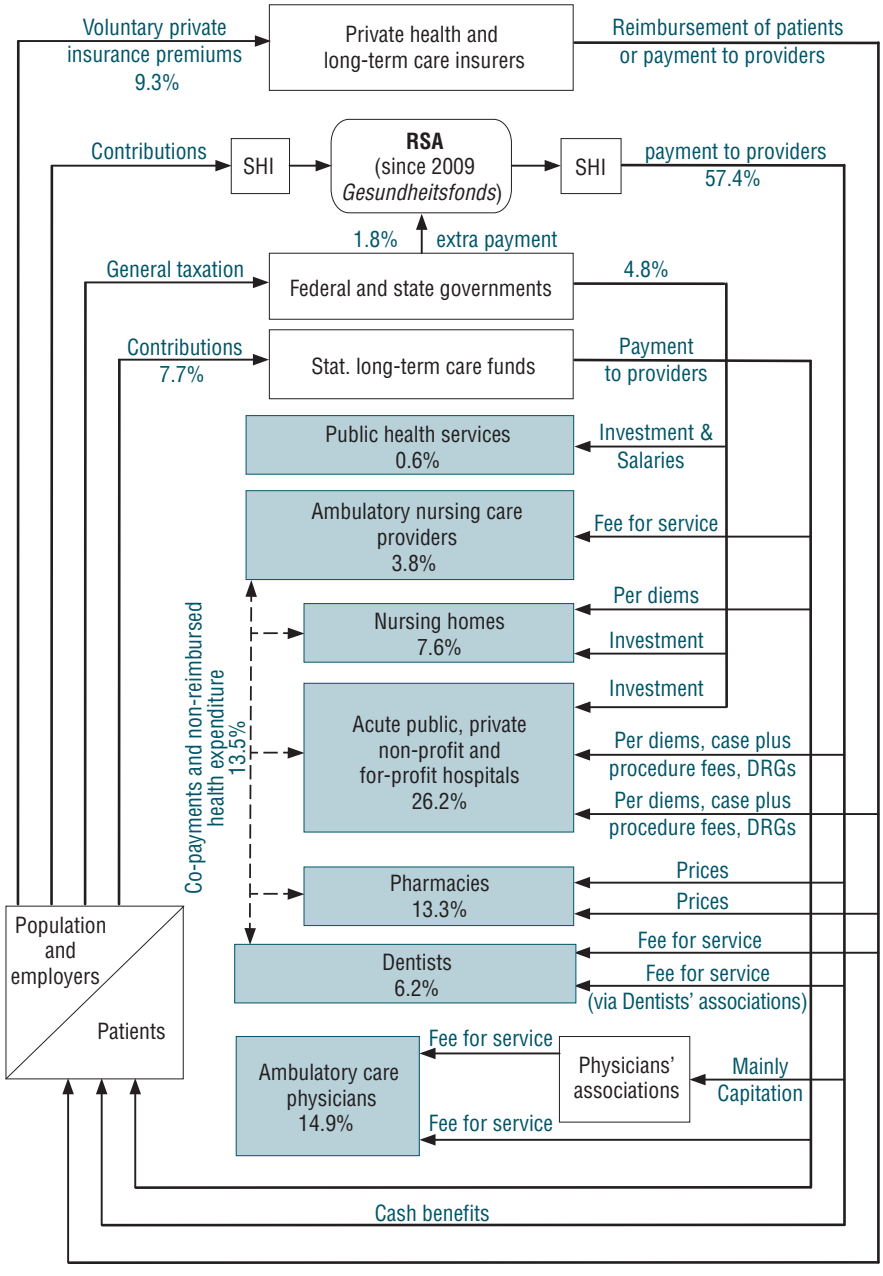


Source: Based on data in Bundesministerium für Gesundheit, 2011a (1–4 quarters 2010, preliminary results).
Note: bn: Billion.

Fig. 3.7 shows the main financial flows between the population, purchasers and health care providers in the German health care system in 2012 – including public health services and long-term care (excepting the purchasers and providers mentioned in the footnote).

Fig. 3.7

Financing flow chart for the German health care system (sources of finance and expenditures on providers as percentage of total), 2012



Source: Based on data in Statistisches Bundesamt, 2014b.
Notes: Sources of finance not presented in the chart (as a share of total health expenditure in 2012): statutory retirement insurance (1.4%), statutory accident insurance (1.6%) and employers (4.3%). Providers not presented: practices of non-physicians (3.3%), health sector trade handicraft (6.7%), other ambulatory providers (0.7%), preventive and medical rehabilitative care institutions (2.9%), transportation providers (1.6%), administration (5.7%), investments (3.3%) and all other providers, (3.2%).

3.3 Overview of the statutory financing system

3.3.1 Coverage

Sickness fund membership is mandatory for employees whose gross income does not exceed the opt-out threshold (*Jahresarbeitsentgelt-Grenze* or *Versicherungspflichtgrenze*). Those earning above the threshold may choose to remain with SHI as so-called voluntary members or take out PHI. Employees belong to this group only after their income has exceeded the opt-out threshold for three calendar years in a row (previously, one calendar year). Employees whose occupational income exceeds the threshold from the start of their first gainful employment may have voluntary SHI coverage if they apply within three months. The opt-out threshold was €3900 gross per month in 2005 and has been increased annually, reaching €4162.50 in 2010. As a result of the financial crisis, the threshold was lowered to €4125 for 2011, but was then increased again in steps to €4462.50 for 2014.

Furthermore, students, unemployed individuals and pensioners are required to obtain SHI coverage. Self-employed individuals may also choose SHI coverage as long as they were members of a sickness fund prior to becoming self-employed. Alternatively, they may take out private insurance. Before 2007, voluntary membership in a sickness fund was terminated after failure to pay contributions for two months. Since 2007, however, membership is suspended in such cases and the individual in question has no further claim to compensation for medical services; exceptions include services involving the treatment of acute conditions, pain or related to pregnancy or maternity.

Traditionally, the majority of insured individuals in Germany were not able to choose freely among the sickness funds; instead, they were assigned to the appropriate sickness fund based on geographical and/or occupational criteria. This system of automatically assigned membership led to large variations in contribution rates through variations in the income and risk portfolios of the different sickness funds. Only voluntary white-collar members – and, after 1989, voluntary blue-collar members – had the right to choose among several sickness funds and to cancel their membership with two months' notice. Other white-collar workers (and certain blue-collar workers) were able to choose when becoming a member or changing jobs. Since this group grew substantially over the decades, approximately 50% of the population had at least a partial choice of sickness funds by the early 1990s.

The Health Care Structure Act of 1993 gave almost every person covered by SHI the right to choose between sickness funds as of 1996 and to switch to a new sickness fund on a yearly basis with three months' notice (the earliest date for giving notice being 30 September 1996). The AOKs and substitute sickness funds were legally required to open their ranks to all applicants ("open sickness funds"). Individual BKKs and IKKs were allowed to remain closed to outside applicants at their own discretion; those that have chosen open membership, however, are also required to accept all applicants. Since April 2007, the sickness fund for mining workers (which merged with the sailors' sickness fund in 2008) has been opened to all applicants as well. Only the farmers' sickness fund retains the system of automatically assigned membership.

Since 2002, change of sickness fund is possible at any time but the interval to remain insured with a particular fund became 18 months. However, voluntary members – those earning above the threshold – can still move from one fund to another at any time with two months' notice. A decision to leave the SHI system in favour of private insurance cannot be revoked, however.

To provide all sickness funds with an equal position or a level playing field for competition, a risk-adjustment scheme was introduced in 1994. The scheme sought to equalize differences in expenditure among sickness fund-insured people (due to age, sex and disability) as well as their different incomes (see section 3.3.3).

In the wake of the Act to Strengthen Competition in SHI, all residents of Germany are legally required since January 2009 to have health insurance. The current number of people without coverage cannot be determined precisely, as the various data sources do not lead to the same findings. Data from the Microcensus, which is conducted every four years and asks about health insurance coverage, are usually cited in this context. Based on this source, an estimated 137 000 people, or 0.17% of the German population, did not have health insurance in 2011. The Federal Statistical Office points out, however, that there are likely a number of unreported cases, including people who did not answer the question about health insurance in the survey. Based on earlier estimates, it can be safely assumed that the number of uninsured increased steadily in the time before the mandatory health insurance requirement. In 2003, for example, some 188 000 people were reported to have no health insurance, compared with 150 000 in 1999 and 105 000 in 1995. Another estimate from 2005 indicated that a total of 300 000 people were uninsured. The uninsured includes mainly the self-employed, rich and poor, and people who had voluntary insurance but failed to pay their contributions. It remains to be seen whether the mandatory insurance requirement will reduce the number of uninsured.

3.3.2 Collection

Contributions towards SHI with its 132 (January 2014) sickness funds constitute the major system of financing health care in Germany (see section 3.2). The sickness funds are responsible for collecting contributions, which they transfer to a Central Reallocation Pool. This Pool, which was introduced in 2009, is administered by the Federal Insurance Authority. Sickness funds collect the contributions – from both the employers and the employees – directly from the employers or public agencies, and transfer these to the Central Reallocation Pool; sanctions apply for evasion. The sickness funds operate on a pay-as-you-go principle and may officially not incur deficits or accumulate debts. Until the end of 2008, they were free to determine their own contribution rates; in 2009 and 2010 the federal government set a uniform contribution rate and from 2011, it is set by federal law. If expenditure exceeds the allocations through the Central Reallocation Pool, sickness funds have to charge their insured a supplementary premium. The surcharge is neither subject to centralized pooling nor to risk adjustment. Moreover, being a flat fee, it is the same for all members of a sickness fund regardless of their income. If it was higher than €8 per month (between 2009 and 2010), however, a sickness fund had to assess its member's income to ensure that the surcharge did not exceed 1% of the portion of their income that is subject to SHI contributions. Since 2011, the surcharge is no longer capped but can be set by the sickness funds individually. Conversely, if revenue exceeds expenditure in a given year, sickness funds may refund a share of their members' contributions. The number of sickness funds that additionally charge their members was only 13 in early 2011. The relevant association is legally required to give financial support only in the case of serious financial difficulties that undermine the proper functionality of a sickness fund.

Contribution rate and contribution sharing

SHI contributions are dependent on income and not risk; non-earning spouses and children are covered without any surcharges. Contributions are based exclusively on income from gainful employment, pensions or unemployment benefits, and currently not on savings, capital gains or other forms of unearned income. Such broadening of the income base was introduced transiently for voluntarily insured pensioners in 2000 but was soon refuted by jurisdiction. The contributions increase proportionally along with income up to an upper threshold, which was €3750 per month in 2010, but was reduced to €3712.50 in 2011 because of the financial crisis. In 2014 the threshold was raised to €4050 (Bundesministerium für Gesundheit, 2014).

From 1955 until June 2005, contributions were shared equally between the insured and their employers (see also Table 2.1). Since July 2005, the parity has been shifted towards higher contributions from the employees' side. The "general" contribution rate was reduced by 0.9 percentage points, which means that employers save 0.45 percentage points. Employees have to contribute an additional 0.9% of their gross income up to the above-mentioned level; consequently contribution rates for them increased by about 0.45 percentage points. Taking 2013's contribution rate of 15.5% (including the 0.9%) as an example, the insured person pays 7.3 + 0.9% out of his or her pre-tax income below the upper threshold and the employer pays 7.3% in addition to wages (so that in reality 15.5 is not paid out of 100 but of 107.3). These measures result in a financing mix of approximately 53% for employees and 47% for employers. For people with earnings below a threshold of €450, only employers have to pay for contributions (at a rate of 13%; 5% for employment in private households). Until 1998, income up to that level was not liable for sickness fund contributions.

For self-entrepreneurial artists and publicists, the federal government takes over half of the contributions. Students pay a uniform per capita premium that is set at 70% of the general contribution rate (around 10.85%) on the maximum public support for students, resulting in a contribution of €64.77 per month in 2013. Students can be released from contributing to the SHI during their first three months of studying if they were exempted from SHI before. In the case of retired and unemployed people, the institutions that administer the statutory scheme for old-age and disability insurance and the Federal Employment Agency, respectively, take over the financing role of the employer. Since 2004, pensioners have to pay contributions also from company pensions and other non-statutory pensions, from which they deduct the full contribution rate.

Development of contribution rate and SHI financing

German health policy is primarily concerned with contribution rates rather than total health expenditure or SHI expenditure as a percentage of GDP.

The total sum of the income of all the insured up to that level (the so-called contributory income) is among the most important figures in health policy since its growth rate from year to year determines the level of cost-containment. It is influenced on the one hand by changes in wages and employment rates and on the other hand by regulatory interventions defining the contribution base for social transfer payments. Therefore, growth in average contributory income is not necessarily the same as wage increases. Higher than average wage increases for workers earning less increase the contributory income disproportionately, while rising unemployment – especially hidden unemployment through people leaving the workforce and becoming "dependants" – decreases the contributory

income disproportionately. Reforms of the statutory retirement insurance and statutory unemployment benefits also have had large effects on the contributory income of the sickness funds.

The problem with revenues from contributions is that they are not based on the total economy but only on that part on which health insurance contributions are based (i.e. income of insured people up to the threshold). Major reasons for the generally shrinking income base of sickness funds are (1) the decreasing wage quota in the total economy, (2) the decreasing share of the social insurance relevant part of wages, (3) the increasing share of pensioners, and (4) a high rate of unemployment. The current system – oriented at lifelong full-time employment status – does not respond to nor profit well from the current working biographies and arrangements involving semi-entrepreneurship, part-time basis and multiple jobs.

The contribution rate has risen considerably faster than SHI expenditure or total health expenditure as a share of GDP (Tables 3.2 and 3.4). The lower growth of SHI expenditure as a share of GDP was achieved by a variety of cost-containment measures, including sectoral budgets, rational prescribing, price reductions and downsizing.

Yet over recent years, the revenues from contributions have increased more slowly than both GDP and health expenditure. This has led to repeated deficits and increasing debts although sickness funds increased their contribution rates (Table 3.4 and Fig. 3.8). From 2001 to 2003, the statutory sickness funds made deficits of around €3 billion per year. Because the sickness funds are not allowed to incur long-term debts, they were forced to raise contribution rates. The average contribution rate increased quite steeply from 13.5% of gross earnings in 2001 to 14.3% throughout 2003 and remained at this level in 2004 (Table 3.4 and Fig. 3.8). Similar to the previous substantial increase of contribution rates (from 12.7% to 13.5% between 1992 and 1996), the rise in contribution rates and deficits was followed by a major health care reform, which was devised jointly by the federal government and opposition parties. As well as the Health Care Structure Act of 1993, the SHI Modernization Act in 2004 was followed by a considerable reduction of costs for insurers. Insurers used surpluses of €1.4 billion in 1993 and €4.1 billion in 2004 to cover deficits and not – as the government had wished – to reduce contribution rates.

The revenue of sickness funds was larger than expenditure between 2004 and 2009 (Table 3.4), until a new, albeit small deficit was generated in 2010. In 2011 and 2012, the SHI recorded considerable surpluses, resulting from both an increase in the uniform contribution rate of 0.6 percentage points and a booming

Table 3.4
Trends in financing SHI, 1994–2012

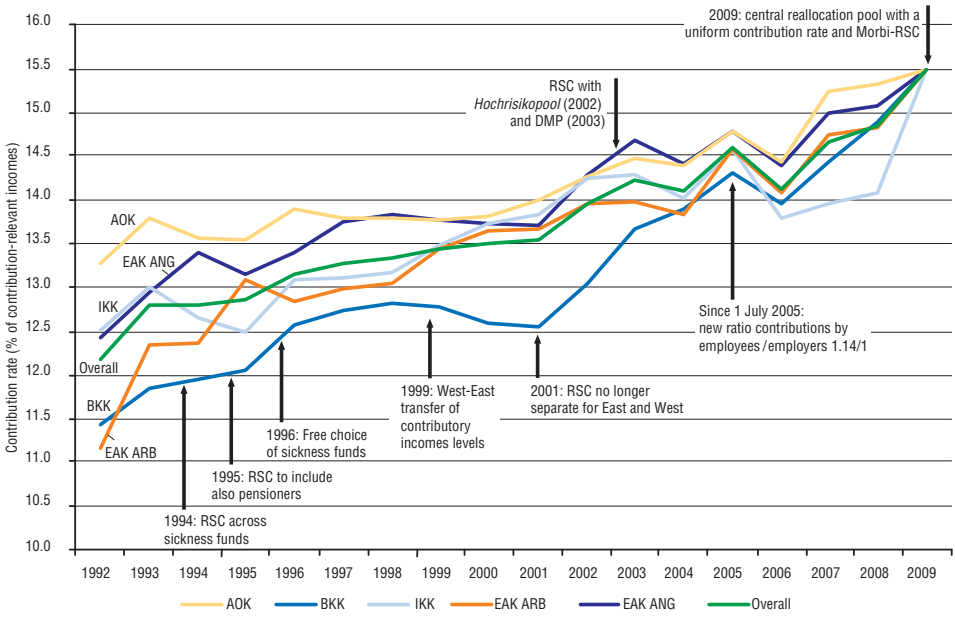
	1994	1996	1998	2000	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
SHI revenues (€ billions)	118.8	123.2	127.9	133.8	139.7	141.1	144.3	145.7	149.1	156.1	162.5	172.2	175.6	183.8	189.7
SHI expenditure (€ billions)	117.4	127.1	127.4	133.7	143	145.1	140.2	143.8	148.0	153.9	160.9	170.8	175.9	179.6	184.2
Balance (€ billions)	1.4	–3.9	0.5	0.1	–3.3	–4	4.1	1.9	1.1	2.2	1.6	1.4	–0.3	4.2	5.5
SHI expenditure															
Cash benefits (€ billions)[a]	9.6	10.7	8.6	8.5	8.9	8.1	6.9	6.4	6.2	6.5	7.1	8.3	8.3	9.1	9.7
In-kind benefits (€ billions)	101.5	109.4	111.5	117.5	125.4	128.2	124.2	128.5	132.5	137.9	143.8	150.1	157.2	159.7	163.4
As share of GDP (%)	6.0	6.2	6.0	6.0	6.2	6.3	6.0	6.1	6.0	6.0	6.1	6.2	7.1	6.9	7.0
Contributions															
Average/uniform SHI contribution rate (%)[b]	13.2	13.5	13.6	13.6	14.0	14.3	14.2	14.6	14.2	14.6	14.9	15.5/14.9[b]	14.9	15.5	15.5
Contribution to long-term care insurance (%)	n/a	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7/1.95[b]	1.95	1.95	1.95	1.95
Total social insurance contribution (%)[c]	37.2	39.2	42.1	41.1	41.3	42.0	41.9	42.3	41.9	40.4	39.8/40.05[b]	40.15/39.55[b]	39.55	40.35	40.05

Sources: Statistisches Bundesamt, 2014b; Bundesministerium für Gesundheit, 2011a, 2013a.
Notes: n/a: Not applicable until the introduction of statutory long-term care insurance in 1995; [a]Cash benefits include sickness benefits, maternity benefits according to § 200 RVO), childbirth benefits according to [3]200b RVO (until 2004); death benefit (until 2004), since 2008 also personal budget according to § 17 SGB IX; [b]Until June 30/from July 1; [c]Since 2005 including the special contribution of 0.9%.

economy (Table 3.4). The total reserves of the SHI system were estimated at €27.5 billion at the end of 2013; this included both the Central Reallocation Pool (around €10.7 billion) and the sickness funds (around €17 billion), in spite of the cuts in tax subsidies between 2011 and 2013 (see section 3.2.1).

Fig. 3.8

Average annual contribution rates (%) by sickness fund associations, 1992–2009



Source: Based on information from the Federal Ministry of Health.
Notes: RSC: Risk-structure compensation; Morbi-RSA: Morbidity-based risk-adjustment scheme (*morbiditätsorientierter Risikostrukturausgleich*); *Hochrisikopool*: High-risk pool; AOK: General regional sickness funds; BKK: Company-based sickness funds; IKK: Guild sickness funds; EAK-ARB: Substitute sickness funds for blue-collar workers; EAK-ANG: Substitute sickness funds for white-collar workers; Data for 1982–1990 refer to the former west part of Germany; information on the total average contribution rate for all sickness funds include the sailors' fund, but exclude the miners' sickness fund and the sickness fund for agricultural workers.

3.3.3 Pooling of funds

As part of the Act to Strengthen Competition in SHI, a Central Reallocation Pool was introduced in 2009, fundamentally reorganizing the system for collecting and distributing SHI contributions. Until that date, the sickness funds collected contributions directly from insured members or their employers and administered these contributions individually. In contrast, the Central Reallocation Pool, which is administered by the Federal Insurance Authority, collects the SHI contributions centrally and subsequently reallocates them among

the sickness funds according to a morbidity-based risk-adjustment scheme. (In practice, the contributions are still collected by the individual sickness funds but are transferred on the same day to the Central Reallocation Pool.)

The morbidity-based risk-adjustment scheme for distributions of SHI contributions has been in place since January 2009 and represents a further stage in the evolution of risk adjustment in the German SHI system. The first such risk-adjustment scheme in Germany was introduced in 1994 and used gender, age and invalidity status as risk adjusters (see below). In contrast, the new morbidity-based scheme relies on direct measures of morbidity in addition to gender and age.

The implementation of the Central Reallocation Pool introduced a new financing mechanism to the health care system that has immediate effects on the mode of operation of the risk-adjustment scheme. Before, the compensation was dependent on the income of the insured, since the calculation was based on a ratio of the revenues subject to contribution of members of a sickness fund and the total expenditure for all insured members of the SHI. The risk-adjustment scheme no longer corresponds to the income, since the contributions of all members are being paid to the Reallocation Pool and are, therefore, invalid for the adjustment of disparities of personal income. Also, the financial compensation is no longer taking place between the single sickness funds, but each one of them receives its assignment of the Central Reallocation Pool.

To provide all sickness funds with an equal position or a level playing field for competition, a risk-adjustment scheme was introduced in two steps, in 1994 and 1995; the latter step included retired individuals and their co-insured spouses, replacing the former sharing of expenses for retired people between funds (§ 266 SGB V). The scheme sought to equalize differences in (averaged) expenditure among sickness fund-insured people (due to age, sex and disability). More than 90% of a sickness fund's expenditure was relevant to the risk-adjustment scheme since it was being spent for benefits that were covered by the uniform, comprehensive SHI package and that determined a sickness fund's "contribution-need" (need for finances). The remaining expenditure for administration and fund-specific benefits enacted in its statutes was not taken into account.

The 1994 risk-adjustment scheme also equalized for different income levels among fund members as well as differences in the number of dependants (since they are included on the expenditure side while they enter the contribution calculations as zero). As sickness funds determined their own contribution rates, the differences in income were based on a virtual SHI-wide contribution rate,

determined by the SHI-wide "contribution-need" (sum of relevant expenditure) divided by the SHI-wide contributory incomes. For each sickness fund, the difference between "contribution-need" and the contributions collected assuming this virtual rate determined the reallocation amount to or from the equalization scheme.

Concerns about the increasing amount required for redistribution (Busse & Riesberg, 2004) and risk selection practices among sickness funds led to the enactment of two additional laws: The Act to Equalize Statutory Provisions in Statutory Health Insurance (*Gesetz zur Rechtsangleichung in der gesetzlichen Krankenversicherung*) made the risk-adjustment mechanism uniform for all of Germany from 2001. This led, on the one hand, to an increase in the transfer of financial resources from the western to the eastern part of the country (for details on the amounts of these transfers, see Busse & Riesberg, 2004). On the other hand, the income basis of SHI in the eastern part of Germany was broadened by adjusting the upper threshold for contributions and the opt-out threshold, and exemption from co-payment to levels in the western part.

The Act to Reform the Risk-Adjustment Scheme in the SHI System (*Gesetz zur Reform des Risikostrukturausgleichs in der GKV*) was passed in 2001 to adjust more precisely for differences in the morbidity portfolios of the sickness funds, as well as to prevent "cream-skimming" and to provide the sickness funds with an incentive to offer special treatment programmes to people with chronic illnesses. In addition to the existing adjustment for differences in income as well as expenditure by age, sex and invalidity among insured, the law introduced a high-cost compensation and separate risk-adjustment categories for people participating in DMPs.

The introduction of a morbidity-based risk-adjustment scheme on 1 January 2009 aimed for more efficient resource allocation. Based on the morbidity-based risk-adjustment scheme, the sickness funds receive a basic flat rate per insured person of the amount of the average per capita expenditure. In 2011, the monthly flat rate was at €209.48. The sickness funds receive an age-, sex- and morbidity-based premium or discount on the flat rate to adjust payments according to health care needs. This procedure takes into account the special health care needs for selected serious and cost-intensive chronic diseases. According to the current Risk Structure Reconciliation Regulation (*Risikostruktur-Ausgleichsverordnung*), the Federal Insurance Authority in cooperation with the scientific committee defined 80 eligible diseases. Diseases are eligible if the average expenditure per insured suffering from this disease is higher than the average expenditure of all insurants by at least 50%. Also, all indications of

existing DMPs were taken into account (see section 5.3). To further continue the promotion of DMPs, sickness funds will receive allocations from the Central Reallocation Pool beyond 2009 for all enrolled members. This flat rate is meant to cover the programme costs such as expenses for documentation and coordination. In 2009 and 2010, it was at €180 and was reduced to €168 in 2011 and €145.86 in 2014 by the Federal Association of Sickness Funds.

3.3.4 Purchasing and purchaser–provider relations

Collective versus selective contracting

Details for the provision of services and its payment are negotiated and defined on a corporatist level. General rules are defined on the federal level through the Federal Framework Contract (*Bundesmantelvertrag*) between the Federal Association of SHI Physicians and the Federal Association of Sickness Funds. Based on this, collective contracts are concluded on the regional level (i.e. representatives of the sickness funds conclude regional contracts with the regional associations of SHI physicians or dentists and there is generally no direct contractual relationship between the provider and the sickness funds). For the SHI, the conclusion of collective contracts is the predominant method of purchasing outpatient services. In this case, the scope of service and, in principle, payment is equal for all providers of a region. In contrast, when concluding selective contracts, sickness funds contract directly with health care providers and do not seek the route via their associations. In 2003, the government originally intended to introduce exclusive selective contracting for all specialized doctors and to continue collective contracting with GPs only. Those plans were finally discarded because of resistance by physicians. The SHI Modernization Act of 2004 finally introduced "family physician care models" and models of integrated care as the only forms of selective contracting (see section 5.4.3). Sickness funds that participate in integrated care models are no longer bound to conclude collective contracts with the regional associations of SHI physicians for those services that are covered by the integrated care project. The participation for insured people is voluntary but they commit themselves to the physicians who are contract partners of the integrated care model contract. The Act to Strengthen Competition in SHI of 2007 has widened the scope of action for selective contracting. All selective contracts feature the difficulty that collective contracts have to be adjusted in respect to services covered by selective contracts as well as for reimbursement, which is difficult since patients who participate in selective contracts mostly have a higher morbidity.

In the hospital sector, collective contracts also prevail. The contract results automatically from the inclusion of a hospital in the hospital requirement plan. However, § 109 SGB V allows that the state associations of the individual sickness fund conclude additional contracts with individual hospitals.

Budgets

With the risk-adjusted transfers they receive from the Central Reallocation Pool (see section 3.3.3), sickness funds must cover all the expenses of insured members and their dependants, and, therefore, carry full financial liability. The transfers do not represent fixed predetermined budgets; rather, insured individuals' claims to benefits are independent of the amount transferred. If expenditure exceeds revenue in a given year, a sickness fund must levy a monthly community-rated surcharge directly from its members.

As discussed in section 2.2, the main political goal in health policy has been to restrict the sickness funds' expenditure to a level where it matches income (or – more precisely – to limit expenditure growth to the rate of growth of contributory income in order to keep contribution rates stable). To that end, sectoral budgets or spending caps were legally introduced at the end of the 1980s.

It should be kept in mind that all these SHI "budgets" are on the providers' side, not the payers' side. While some budgets *de facto* also limit the expenditure of individual funds (e.g. morbidity-based capitation payments to the regional associations of SHI physicians for ambulatory care), others do not have – nor intend to have – that effect, since, for example, expenditure under a hospital budget or a pharmaceutical spending cap is divided between funds according to the actual utilization of their members. In addition, if private patients are also taken into account, then the providers' budgets are not budgets in the strict sense.

The "budgets" are based on historical expenditure patterns and not on needs-based formulae. To limit expenditure, growth rates were limited by law or budgets and spending caps were based on actual expenditure in a previous year (often the year before the legislative act, so as to avoid any changes after proposing or passing the act). In either case, regional differences in expenditure remained untouched. A shift to performance- or needs-based financing has only occurred with the introduction of DRGs in the hospital sectors and morbidity-based criteria in the ambulatory care sector. Section 3.6 has details of provider payments.

3.4 Out-of-pocket payments

Between 1996 and 2011, out-of-pocket expenditure as a share of total expenditure increased from 11.3% to 13.7% (Table 3.3). Table 3.5 shows out-of-pocket payments according to sector and service.

Table 3.5

Out-of-pocket payments by institution and by type of service, 1995–2011, selected years

	Out-of-pocket payments (€ billion)							Increase 2000–11 (%)
	1995	2000	2005	2008	2009	2010	2011	
Total	19.5	25.2	33.4	36.2	37.5	39.0	40.1	59
By institutions								
Ambulatory institutions	14.9	17.3	22.7	24.1	25.5	26.7	27.6	60
Physician practices	0.6	0.9	3.1	3.3	3.5	3.7	3.9	333
Dentist practices	2.1	2.1	2.7	3.3	3.4	3.5	3.6	71
Other practices	1.0	1.3	1.4	1.7	1.8	1.7	2.0	54
Pharmacies	5.7	6.3	7.9	7.3	7.2	7.9	8.0	27
Health trade professions and retail	5.1	5.6	5.8	6.7	6.9	7.1	7.2	29
Ambulatory long-term care	0.8	1.4	1.9	2.1	2.1	2.1	2.1	50
Other institutions	0.6	0.6	0.6	0.6	0.6	0.7	0.8	33
Inpatient institutions	3.7	4.8	6.9	8.0	8.5	8.7	8.9	85
Acute hospitals	0.8	1.1	1.4	1.4	1.3	1.4	1.5	36
Preventive spa/rehabilitation	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0
Inpatient long-term care	2.8	3.6	5.4	6.5	7.0	7.1	7.2	100
By type of service								
Medical services	2.2	2.5	5.2	5.6	5.7	6.0	6.4	156
Non-physician care	4.1	3.7	4.7	5.5	5.5	6.0	6.0	62
Room and board	1.2	3.5	5.2	5.6	5.7	6.0	6.4	83
Goods	11.4	12.6	14.5	14.7	14.9	15.0	16.2	29
Pharmaceuticals	5.8	6.3	7.3	6.7	6.6	6.5	7.2	14
Medical aids	3.5	4.3	4.9	5.5	5.6	5.7	6.1	42
Dentures (costs for material and laboratory)	2.0	2.0	2.1	2.4	2.6	2.7	2.8	40
Other medical supplies	0.1	0.1	0.1	0.1	0.1	0.1	0.2	100

Source: Statistisches Bundesamt, 2014b.

In terms of sector, the largest category of expenditure in 2011 was associated with pharmacies (€8.0 billion), followed by hospital/day care (€7.2 billion), health trade professions and retail (€7.2 billion) and physician practices (€3.9 billion). Out-of-pocket expenditure associated with physician practices has increased four-fold since 2000, especially because of the introduction of co-payments for physician visits in 2004, whereas expenditure associated with

pharmacies increased by 27%. Overall, there has been a shift from co-payments for goods (especially pharmaceuticals and medical aids) to those for physician and nursing services, as well as for residential services (especially in nursing homes), despite the introduction of long-term care insurance, which initially led to a decrease in out-of-pocket payments for ambulatory care.

Out-of-pocket payments relate to (1) co-payments for benefits partly covered by prepaid schemes and (2) direct payments for benefits not reimbursed by a person's prepaid scheme.

Co-payments made by SHI-covered patients amounted to less than €5 billion, which was only approximately one-seventh of all out-of-pocket payments. Only for physician practices (€1.5 billion in 2010) did the share – in the form of the co-payment for physician visits – account for just under half; for pharmacies it account for a quarter, at €1.7 billion in 2010. The major share was, therefore, attributable to pharmaceuticals purchased on an out-of-pocket basis. Other relevant co-payment amounts in 2010 were for hospital treatment (€0.7 billion), treatment by allied health professionals (€0.7 billion) and dental treatment (€0.4 billion).

Despite accounting for only a relatively small share (i.e. approximately 2%) of total health expenditure, or 3% of SHI expenditure (including co-payments), public debate has focused more on co-payments than on other types of out-of-pocket spending, perhaps because co-payments and corresponding exemption mechanisms have a long tradition in the German health care system, most traditionally in pharmaceuticals, for which cost-sharing was introduced in 1923 and has existed ever since (Gericke et al., 2009).

In the Health Care Reform Act of 1989, cost-sharing was advocated for two purposes: to raise revenue (by reducing expenditure for dental care, physiotherapy and transportation and making patients liable for pharmaceutical costs above reference prices) and to reward "responsible behaviour" and good preventive practice (dental treatment) with lower co-payments. These cost-sharing regulations were part of a complete restructuring of co-payments, resulting in generally higher cost-sharing.

Between 1989 and 1992, no co-payment had to be paid for reference-priced drugs except for the price differential between the reference price and the actual price (see section 5.6.4). Since 1993, flat-rate co-payments have to be paid again for all drugs – in addition to the differential between the actual and reference prices. It is noteworthy that very few drugs now exceed the reference price, because of competition within the reference-price groups and the legal

obligation for physicians to inform patients that they are liable for the price difference for reference-priced drugs. In 1993, the co-payment amount was linked to the price of the drug sold – an idea reintroduced from 2004 (Table 3.6) in a modified form. From 1994 until 2003, it was linked to package size as providing an incentive to patients to ask for larger package sizes. The graded

Table 3.6

Co-payment/co-insurance levels in Germany, 1994–2014[a]

	1994–6	1997, first half	1997, second half	1998	1999	2000–3[b]	2004–14
Ambulatory medical treatment (€)	0	0	0	0	0	0	10[c]
Pharmaceuticals (€)[d]							5–10[e]
Small pack	1.5	2	4.6	4.6	4.1	4.1 (4.0)	
Medium pack	2.6	3.1	5.6	5.6	4.6	4.6 (4.5)	
Large pack	3.6	4.1	6.6	6.6	5.1	5.1 (5.0)	
Conservative dental treatment (€)	0	0	0	0	0	0	10[c]
Crowns and dentures (%)[f]	50/40/35				50/40/35	50/40/35	100% above fixed sum[g]
People born before 1979[f,h]		50/40/35	55/45/0	100% above fixed sum			
People born after 1978		100	100	100			
Orthodontic treatment (%)[i]	0–20	0–20	0–20	0–20	0–20	0–20	0–20
Transport to and from medical facility for inpatient treatment/emergencies (€ per trip)	10.2	10.2	12.8	12.8	12.8	12.8 (13.0)	5–10[c]
Transport to and from medical facility for ambulatory treatment (%)	100	100	100	100	100	100	100
Non-physician care (e.g. home nursing, physiotherapy) (%)	10	10	15	15	15	15	10 (plus €10/ prescription)[j]
Hospital stay and inpatient rehabilitation after a hospital stay (€ per day)[k]	6.1	6.1	8.7	8.7	8.7	8.7 (9.0)	10
Preventive spa or inpatient rehabilitation unrelated to hospital stay (€ per day)	6.1	12.8	12.8	12.8	12.8	8.7 (9.0)	10

Source: Modified from Busse & Riesberg, 2004.

Notes: [a]Several rates in this table were lower in the eastern part of Germany until 1999; [b]Changes for 2002–2003 in parentheses; [c]Per physician or dentist consulted per quarter except referrals only until the end of 2012; [d]With price of drug as maximum, plus the difference between the price and the reference price; [e]10% with minimum €5 and maximum €10 (since July 2006 no co-payment if price is, as should be, at least 30% below reference price); [f]Percentage paid is reduced if the insured had regular annual check-ups (none or under 5 years/for last 5 years/for last 10 years); [g]Regulation for 2005 (2004 as before) fixed sum to initiate 100% is higher for insured with regular check-ups for 5 and 10 years, respectively; [h]100% for major dental work (more than four replacement teeth per jaw or more than three per side of mouth, except multiple single bridges, which may exceed three); [i]If eating, speaking or breathing is severely limited and treatment is begun under age 18, otherwise 100%; full cost is reimbursed retrospectively by the sickness fund if a predefined treatment plan is entirely completed; [j]For short-term home nursing limited to 28 days per year; [k]Until 2003 limited to a total of 14 days per calendar year, from 2004 limited to 28 days.

scheme was meant to provide an incentive for physicians to prescribe larger package sizes with lower average costs-per-dose, resulting in overall cost savings per patient treated.

The overall amount of SHI pharmaceutical co-payments continuously increased from €0.6 billion in 1991 to €2.7 billion in 1998. The then newly elected Social Democratic/Green Coalition Government lowered nominal co-payment rates immediately after the 1998 elections. As a consequence, aggregate co-payments for pharmaceuticals decreased to €2 billion in 1999 and remained stable at €1.8 billion in the following years. The SHI Modernization Act of 2004 had a substantial impact on trends in the co-payments made by patients. Despite a marked reduction in the number of prescriptions in 2004, for example, aggregate co-payments increased to €2.4 billion. In the following years, however, this amount decreased again, reaching €1.7 billion in 2010; this resulted, in particular, from changes generated by the Act to Improve Efficiency in Pharmaceutical Care (*Gesetz zur Verbesserung der Wirtschaftlichkeit in der Arzneimittelversorgung*) of 2006, which allowed pharmaceuticals to be sold without a co-payment if their price was at least 30% lower than the reference price (see section 5.6.4).

In 1997, cost-sharing was notably increased for drugs, preventive spa treatments and rehabilitation. Crown and denture treatments were completely removed from the benefit package for everyone born after 1978 (Table 3.6). For those born before 1979, prosthetic treatment was no longer directly reimbursed through the sickness funds but patients were required to obtain private treatment and receive a fixed reimbursement from the sickness fund. Through this regulation, prosthetic treatment became the first area in German SHI to use "contracts" between patients and providers. While the law had established limits for private billing, the ministry estimated that at least one-third of dentists overcharged. Accordingly, the regulation was abolished late in 1998 in favour of the former co-insurance regulation (Table 3.6).

In 2004, co-payments and other out-of-pocket payments increased substantially for SHI-covered patients since the bulk of expected savings through the SHI Modernization Act (4% of current expenditure) was to be achieved by shifting costs to users via increased co-payments or the exclusion of benefits (e.g. eye glasses, transport to ambulatory care and OTC medications). Co-payment amounts were increased and standardized to €10 per inpatient day and to €5–€10 for services and products in ambulatory care. Until the end of 2012, co-payments of €10 per quarter also applied to the first contact at a physician's (not necessarily a GP) or dentist's office and when other physicians were seen without referral during the same quarter.

Table 3.6 gives an overview of these co-payment regulations since 1994 in the various sectors of the SHI system.

Exemptions from co-payments have a long tradition in Germany, being granted to specific population subgroups, to the poor or to people with substantial health care needs. Population subgroups that have usually been exempt from user charges were children and adolescents up to the age of 18 years (except for dentures, orthodontic treatment and transportation) and pregnant women. According to studies of differing methodologies, the number of people fully exempt from co-payments tripled between 1993 and 2000: from 10% to about 30% of the SHI-covered population. In 2003, about 48% of prescriptions were exempted from co-payments (Gericke, Wismar & Busse, 2004). The share decreased to 29% in 2004 because the general exemption linked to poverty or other reasons had been abolished and the regulations for partial exemption had been tightened. According to the new definition, an SHI-covered person is eligible for exemption from user charges for benefits covered by SHI once more than 2% of the gross household income per annum has been spent on co-payments, or 1% of the gross household income for a sufferer from a serious chronic illness, defined as one that has been treated at least once per quarter for at least a year and is associated with at least one of the following additional characteristics:

- a need for long-term care grade II or III;
- a severe disability of at least 60% or incapacity to work of at least 60%; *or*
- a certificate from the treating physician that the omission of continuous health care (at least one physician contact per quarter for the same disease) would cause a life-threatening aggravation, a reduction of life expectancy or a long-term reduction in the quality of life.

The number of people possibly targeted by these exemption rules is difficult to estimate. There is probably substantial overlap between the following relevant groups. About 1.1 million received long-term care benefits grade II or grade III in 2009 and about 3 million (of a total of 6.8 million) had a level of 60% severe disability in 2007 (Statistisches Bundesamt, 2013f). Moreover, about 1.6 million people received disability benefits from statutory retirement insurance through incapacity to work in 2007 (Statistisches Bundesamt, 2008b).

With the goal of increasing personal responsibility among the insured, the Act to Strengthen Competition in SHI introduced new rules to qualify for the lower 1% exemption limit as of early 2008. Men born after 1 April 1962 and women born after 1 April 1987 who present for the first time with a disease

that is screened for as part of regular health care check-ups or cancer screening must prove that they took part regularly in these preventive measures or have signed up for the respective DMP.

The exemption rules do not apply to benefits that are not covered by the SHI package, or to price differentials for reference-priced pharmaceuticals (see section 5.6). In addition to the SHI exemption mechanism, relief from income tax is granted for "extraordinary" out-of-pocket health care spending above a "reasonable" percentage of the annual household income (1% to 7%).

3.5 Private Health Insurance (PHI)

PHI has two facets in Germany: (1) to fully cover a portion of the population (substitutive PHI) and (2) to offer supplementary and complementary insurance for SHI-covered people. Both types are offered by 42 private health insurers, united in the Association of Private Health Insurance Companies. In addition, there are around 30 other very small and usually regional private health insurers.

In terms of premium turnover, the full-cover segment is more than three times larger than the supplementary/complementary insurance segment for SHI-covered people (in 2012: €25.9 billion vs. €7.0 billion). Between 1997 and 2012, the total revenues increased from €18.6 billion to €35.6 billion (Verband der privaten Krankenversicherung, 2013).

3.5.1 Substitutive (full-cover) PHI

Between 1975 and 2012, the number of people having full PHI cover rose from 4.2 million (6.9% of the population) to 9.0 million (11.0%) (Verband der privaten Krankenversicherung, 2013). Most of the people with full-cover PHI fall into three groups.

- active and retired permanent public employees (e.g. such as teachers, university professors, employees in ministries) who are excluded *de facto* from SHI as they are reimbursed by the government for at least 50% of their private health care bills and purchase PHI to cover the remainder (this group accounts for half of those with PHI);
- self-employed people who are excluded from SHI unless they have been a member previously (except those who fall under mandatory SHI cover such as farmers); and

- employees whose earnings exceed or exceeded the opt-out threshold: since enactment of the Act to Strengthen Competition in SHI in 2007, employees belong to this group only after their income has exceeded the opt-out threshold for three calendar years in a row.

In the last group, employees who were initially below the threshold but then exceed it as a result of an increase in wages may remain in the SHI voluntarily. Employees whose occupational income exceeds the threshold from the start of their first gainful employment may have voluntary SHI coverage if they apply within three months. This option does not apply to civil servants and soldiers.

The number of PHI policies increased substantially in 2001 and 2002, which probably had to do with rising SHI contribution rates, which gave a strong incentive for single young people without health problems to move to PHI. This prompted the government to increase the opt-out threshold by approximately 13%, from €3375 to €3825 per month for 2003 (in 2014: €4350), which, however, reduced the number of new PHI policies only slightly. In 2007 and 2008, the number of new PHI full-cover policies was, at 79 000 and 93 900, respectively, clearly lower than in 2006 (140 800). The decrease is primarily a result of the regulation introduced in 2007 (which was deregulated in 2011) whereby employees who want to move to PHI may only do so if their income has exceeded the opt-out threshold for three years in a row (Verband der privaten Krankenversicherung, 2013).

Employees who have left the SHI scheme but who are brought back within its scope by an increase in the opt-out threshold or a reduction of their salary may be exempt from mandatory membership if they have been outside SHI for at least five years. Since 2000, this choice only applies to those younger than 55 years; those older than 55 have to remain in voluntary health insurance no matter how low their income is. University students who were exempt from mandatory SHI before studies may apply within the first three months of studies to remain exempt from the regular mandatory insurance.

Private health insurers are forced by law to set aside savings for old age from the insurance premiums when the insured are young (while SHI is financed on a pay-as-you-go basis, financing of PHI is based on capital cover). As premiums still rise with age, and entry of privately insured people into SHI is not permitted in ordinary circumstances, private insurers are obliged to offer an insurance policy with the same benefits as SHI at a premium that is not higher than the average maximum contribution to sickness funds. Since 2000, people who have had continuous private coverage for at least 10 years and who are at least

65 years (or 55 with income under the SHI threshold) can opt for the so-called "standard tariff", which guarantees that insurance premiums are not higher than the maximum average SHI contribution. The regulation for this tariff entails that benefits and chargeable prices are restricted (or extended) to the basket of SHI.

Since 2009, private health insurers have been legally required to offer a new "basic tariff" that provides equivalent benefits to those in the SHI package at a premium that may not exceed the highest contribution in the SHI system (approximately €630 per month in 2014). During the first half of 2009, people with PHI or with SHI were able to switch to the basic tariff. Of the 9800 who did so, 5000 switched from the standard tariff and 3050 had previously been uninsured (Verband der privaten Krankenversicherung, 2011). Since then, taking out or switching to a basic tariff policy is only possible for those new to PHI, for insured over 55 years of age, and for those in need. The premium is calculated based only on age and gender of the insured; health status plays no role in this regard. The basic tariff was introduced by the Act to Strengthen Competition in SHI as a way to provide health insurance for the growing number of people who were not legally entitled to SHI (see section 3.3.1). The Act to Strengthen Competition in SHI also changed regulations governing the portability of PHI coverage, ensuring that active life reserves can be transferred from an old to a new insurer as of 2009. This should make it considerably easier for individuals to switch PHI plans in the future.

Fully privately insured patients who do not have the basic tariff usually enjoy benefits equal to or better than those covered by SHI. This depends, however, on the insurance package chosen; for example, it is possible not to cover dental care. In the PHI market, premiums vary with age, sex and medical history at the time of underwriting. Unlike in SHI, separate premiums have to be paid for spouses and children, making PHI especially attractive for single people or double-income couples (Verband der privaten Krankenversicherung, 2013).

Policies with high deductibles and/or excluding certain benefits such as dental care are mainly bought by the self-employed, as for all employees the employers contribute 50% of PHI premiums, up to a ceiling of 50% of the average SHI contribution.

Unlike those with SHI, privately insured people generally have to pay providers directly and are reimbursed by their insurer (*Kostenerstattungsprinzip*). While a price list for privately delivered medical services (Catalogue of Tariffs for Physicians (*Gebührenordnung für Ärzte*)) exists as an ordinance issued by the Federal Ministry of Health, physicians usually charge more – by a factor of

1.7 or 2.3 (which are the maximum levels for reimbursement by the government and by most PHI providers for technical and personal services, respectively) or even more (see section 3.6.2).

3.5.2 Supplementary and complementary PHI

The second market for private health insurers is supplementary and complementary insurance for those with SHI; the former, for example, might cover extra amenities like hospital rooms with one or two beds or treatment by the head-of-service.

Complementary health insurance covers co-payments for benefits that are not – or not fully – covered by the main insurer of an insured. One of the first and most popular complementary policies was the coverage of dental prostheses, which had been excluded from the SHI benefit basket for insured born before 1978 (this regulation was introduced in 1997 and abolished again). Many complementary policies offer, among other services, allowances for co-payments for benefits such as medical aids, remedies or hospital stays, while such allowances for pharmaceutical co-payments are offered less and less.

Since the SHI Modernization Act of 2004, sickness funds have been allowed to offer supplementary and complementary policies that provide benefits that go beyond the standard SHI benefits package. An increasingly large share of the population is choosing to take out such policies. In 2012, 23.1 million SHI-covered people took out supplementary or complementary insurance, which represents a 2.5% increase over the previous year (and an almost fivefold increase compared with the 5.5 million insured who did so in 1991). Of these, dental care tariffs (13.6 million; +2.7%) were the most frequently chosen option, followed by ambulatory care (7.7 million; +0.8%) and hospital care (5.8 million; +1.1%) tariffs. Complementary and supplementary policies that were chosen by SHI- and PHI-covered people alike include sick pay insurance (3.6 million policies in 2012), hospital daily benefits (8.3 million) and supplementary long-term care insurance (1.7 million) (Verband der privaten Krankenversicherung, 2013).

3.6 Payment mechanisms

3.6.1 Paying for hospital services

Principles and developments

Since the Hospital Financing Act of 1972, hospitals have been financed by two different sources: "dual financing" means financing investments through the *Land* and running costs through the sickness funds, private health insurers

and self-pay patients. Sickness funds finance the majority of operating costs including all costs for medical goods and personnel (with the exception of affiliated physicians and midwives). They also finance the replacement of assets with an average economic life of up to three years or maintenance and repair costs. Financing of the running costs is the subject of negotiations between the individual hospitals and the sickness funds and primarily takes place through the DRGs.

Because of the above-average increases in hospital expenditure until the middle of the 1990s (Table 3.7), this sector has been a policy concern for a long time. The German hospital sector has undergone substantial changes since 1993, particularly through the introduction of budgets and prospective payment mechanisms, the possibility of making a profit or a loss (abolition of the own cost-covering principle) as well as extended powers to provide ambulatory treatment. For details of the forms of remuneration applicable to date in the form

Table 3.7

Expenditure for acute and psychiatric hospitals, 1991–2010

Year	Per bed		Per day		Per case	
	Expenditure (€)	Annual rate of change (%)	Expenditure (€)	Annual rate of change (%)	Expenditure (€)	Annual rate of change (%)
1991	56 224		183		2 567	
1992	63 782	13.4	208	13.3	2 756	7.3
1993	68 826	7.9	227	9.3	2 848	3.4
1994	73 195	6.3	243	7.2	2 920	2.5
1995	78 549	7.3	262	7.7	3 003	2.9
1996	81 448	3.7	276	5.3	2 992	–0.4
1997	83 878	3.0	283	2.7	2 963	–0.9
1998	86 821	3.5	289	2.0	2 946	–0.6
1999	89 514	3.1	298	3.2	2 960	0.5
2000	92 207	3.0	308	3.1	2 989	1.0
2001	95 788	3.9	324	5.3	3 056	2.2
2002	99 976	4.4	342	5.7	3 139	2.7
2003	102 721	2.7	363	6.0	3 218	2.5
2004	105 633	2.8	382	5.5	3 341	3.8
2005	108 304	2.5	396	3.6	3 430	2.7
2006	113 713	5.0	408	3.1	3 450	0.6
2007	119 222	4.8	423	3.6	3 518	2.0
2008	125 623	5.4	444	4.9	3 609	2.6
2009	133 488	6.3	472	6.3	3 771	4.5
2010	138 522	3.8	491	4.0	3 862	2.4
Average annual rate of change		**4.9**		**5.4**		**2.2**

Source: From data in Statistisches Bundesamt, 2013c.

of standard per diem charges (until 1992), uniform hospital base charges and department-specific charges (until 1996) as well as in the form of a combination of these with case fees and procedure fees (*Sonderentgelt*) (until 2003), see Busse & Riesberg (2004).

While expenditure per bed and day has continued to rise, expenditure per case actually declined in the late 1990s, indicating that technical efficiency is likely to have increased.

Starting in January 2004, all acute hospitals were required to gradually implement the German modification of the Australian Refined DRG system, although the transition from the budget to the price system was step by step. While 2004 was still entirely based on budgets (i.e. the DRGs only served as remuneration units), the convergence phase began in 2005 with the target of paying for all hospital charges within a single *Land* with a uniform federal state-base case value as of 2009 (with the exception of psychiatric, psychotherapeutic and psychosomatic care). In 2009, hospitals whose base case value would have had to have been reduced too sharply were able to take advantage of a transition arrangement for a further year.

DRG payments

The introduction of a new payment system based on DRGs was the most important reform in the hospital sector since the introduction of dual hospital financing in 1972. The SHI Reform Act of 2000 obliged the self-governing bodies (the German Hospital Federation and the associations of the statutory sickness funds and private health insurers) to select a universal, performance-related prospective case fee payment system that takes into account the clinical severity (case-mix) based on DRGs. The DRGs are meant to cover medical treatment, nursing care, pharmaceuticals and therapeutic appliances as well as board and accommodation, but not capital costs. Additionally, contracting parties in the German system of self-governance are authorized to negotiate for reimbursements that are not covered by DRGs via supplementary fees for certain complex or cost-intensive services, and/or for very expensive drugs.

The stepwise introduction represented an innovative approach to policy implementation, which has been characterized as a "learning spiral", outlining long-term roles, objectives and time frames but allowing governmental actors and corporatist organizations within the self-governance of SHI to issue and refine regulations and to further develop the German DRG (G-DRG) system on a continuous basis. To a hitherto unseen degree, the Federal Ministry of

Health was given – and initially indeed carried out – the explicit capacity of substitutive execution if self-governing corporatist bodies did not fulfil the tasks delegated to them by law within the defined time schedule.

The self-governing bodies opted for the Australian Refined DRG system 4.1 in June 2000 but could not come to a consensus on the basic characteristics for the future DRG system, which were subsequently defined by the Federal Ministry of Health through the Case Fees Ordinance (*Fallpauschalenverordnung*; based on the Case Fees Act). The Case Fees Act (*Fallpauschalengesetz*) of 2002 and the 1st Case Fees Amendment Act (*1. Fallpauschalen-Änderungsgesetz*) of 2003 determined the steps required for the gradual introduction of the DRG-based payment system and a stepwise withdrawal of the mixed payment system (convergence phase). Thereby, hospitals were given the opportunity to adjust to the transition from individual budgets based on historical expenditures to a uniform price system at the state level. The full implementation of the DRG-only price system was planned for 2007 but was postponed further to 2009 by the 2nd Case Fees Amendment Act (*2. Fallpauschalen-Änderungsgesetz*).

The reimbursement system is based on a patient classification system. The system unambiguously assigns patients needing treatment to clinically defined groups (i.e. DRGs) that are distinguished by comparable treatment costs. In the G-DRG system, the procedure used to assign treatment cases to a DRG is based on a grouping algorithm using the inpatient hospital discharge dataset as a basis for a variety of criteria: major diagnosis, other diagnoses, clinical intervention (medical procedures, e.g. stent implantation), patient characteristics (gender, age, weight of newborn children), cause of hospital discharge (e.g. death) and length of stay. Because of this diversification, the number of DRGs increased over the Australian version to 824 in 2004 and 1193 in 2012, encompassing approximately 13 000 diagnoses and 23 000 procedures. The precise definition of the individual DRGs is set out in the most current version of the DRG definition handbook. The G-DRG system is used in all acute hospitals for all service types, and since 2013 also for care in departments of psychiatry, psychotherapy and psychosomatic medicine.

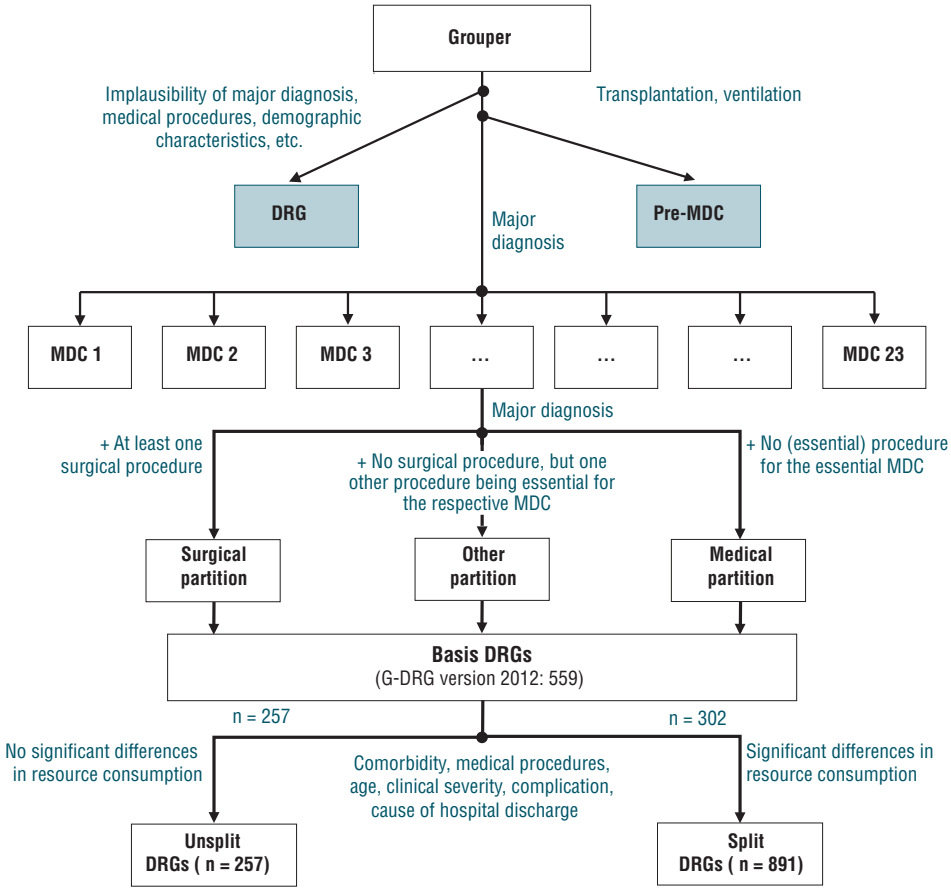
The German self-governing bodies agreed that the cost weights for use in the G-DRG system should be calculated based on German data. The German DRG Institute, which is funded by the self-governing bodies, provides the organizational structure to maintain and further develop the G-DRG reimbursement system; among its other duties, it is responsible for calculating cost weights. For deriving DRG classifications, the German DRG Institute relies on retrospective cost and claims data collected in German hospitals. Each

version of the G-DRG system is based on cost and structural data from two years previously: thus the 2014 version is based on 2012 data. Every German hospital is required to provide the Institute with hospital-related structural data (e.g. hospital's institution code and ownership, number of beds, number of trainees, costs for personnel and total costs) and case-related claims data annually. The case-related cost data are calculated using a sampling of data from hospitals participating in a voluntary data-sharing programme.

For each patient, the hospitals feed these data into a special software tool, the so-called "grouper", which assigns all cases to a particular DRG (Fig. 3.9). In contrast to many other DRG systems, the grouping process in Germany attaches

Fig. 3.9

Grouping process in the German DRG (G-DRG) system



Source: Busse, Tiemann & Schreyögg, 2013.
Note: MDC: Major disease category.

special importance to the medical procedures, which are codified through the German Procedure Classification. Certain procedure codes (e.g. ventilation) determine the DRG directly. For all others, the major diagnosis determines the classification into one of 23 Major Disease Categories. The actual DRG is then determined first by the procedure and then through comorbidity and clinical severity. For the latter, other diagnoses as well as patient characteristics such as age are taken into account but are weighted differently in different DRGs. DRG assignments are unambiguous, as treatment cases with identical diagnosis records are assigned to a single DRG. The grouping process as well as the whole G-DRG system is annually revised.

In the Case Fees Catalogue for 2012, there were 1148 DRGs with national uniform cost weights (B2 in Fig. 3.10, only these are included in Fig. 3.9), 40 DRGs without national cost weights (D1), and 150 supplementary fees (C1 and D2). The 40 DRGs and 64 supplementary fees without national cost weights (D1 and D2) are individually negotiated with each hospital as they were excluded from the DRG national cost weights because their sample size was insufficient for calculation, or their cost variance was too large.

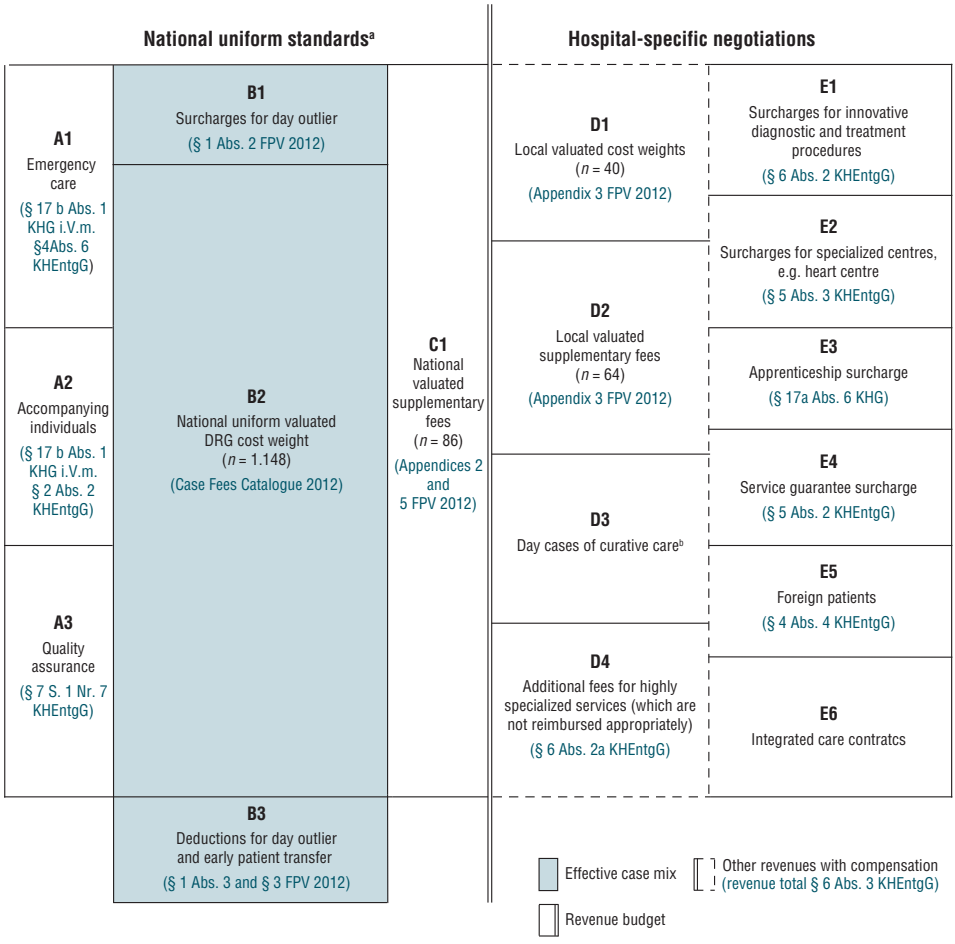
In addition, the contracting parties have been authorized since 2005 to negotiate additional reimbursement by means of case-based or per diem remuneration for highly specialized services if it can be proved that the service in question cannot yet be appropriately reimbursed through DRGs or resolved using the supplementary fees section of the Case Fees Catalogue (D4). In addition, there are a number of surcharges that are negotiated between the contracting parties and are especially relevant for university hospitals. For example, it is possible to negotiate surcharges for innovative diagnostic and treatment procedures (E1) and to even exclude certain special facilities and hospital departments completely from the G-DRG system and finance them through individually negotiated fees.

Including other reimbursement components, e.g. for accompanying people (A2), quality assurance (A3) or the fee for the continuous development of the DRG payment system, all reimbursement components in addition to the uniformly weighted DRGs (B1–B3) account for approximately 20% of the total reimbursement for non-psychiatric inpatient care – although the political aim is to reimburse hospitals solely through uniformly weighted DRGs. Fig. 3.10 gives a detailed overview on the different reimbursement components of inpatient care.

The regional SHI Medical Review Boards regularly review the assignment of cases to DRGs and their respective service utilization. They send teams to randomly selected hospitals, which have to disclose their medical and coding

Fig. 3.10

Reimbursement components of inpatient care in Germany, 2012



Source: Busse, Tiemann & Schreyögg, 2013.
Notes: [a]Exception is classification as a special institution in the Case Fees Ordinance 2012; [b]Mainly, only one national uniform valuated DRG cost weight exists (plus four local valuated cost weights)

practice. Case reviewing serves as a preventive measure against low-quality service provision, or "upcoding", which is a known threat to DRG systems. In instances where unintended upcoding is revealed, the hospitals must reimburse the respective additional revenues. If it is demonstrated that a hospital has intentionally used upcoding as a means to increase profits, then in addition to their reimbursement fee they are required to make a penalty payment equal to the sum of their reimbursement fee. Disputes are dealt with in joint arbitration committees at the *Land* level.

The cost weights used in the G-DRG system make it possible to quantify a hospital's average costs per case in relation to its specific use of resources. This involves defining the case-mix, which is equal to the sum of cost weights for all DRGs performed over a specified period of time. Dividing the case-mix by the total number of cases results in the so-called case-mix index, which is the average cost weight for a particular hospital. With the case-mix index, it is possible to compare the use of health care resources in different hospitals. In turn, dividing a hospital's total costs by its case-mix provides an average DRG cost per case for a specific hospital: otherwise known as the "hospital base rate".

In 2004, the first year of all hospitals using DRGs, the hospital base rate was calculated by dividing the previously negotiated budget by the case-mix. Since the end of the so-called "convergence phase" in 2009, the equation has been as follows: hospital reimbursement is given by the case-mix multiplied by the state-wide base rate. During the convergence phase, the hospital base rates varied substantially, reflecting the large historical funding differences between hospitals. These differences are gradually diminishing as a result of the new payment system. For 2004 for example, the average hospital base rate was €2593, ranging among hospitals from less than €1000 to more than €4000. For most hospitals, the base rate was between €2000 and €3200. In 2008, the hospital base rates ranged from €1830 to €4560.

The individual hospital base rates were gradually equalized to a state-wide base rate by 2009. The principal goal was that, at the end of this four-year transition period, the same price would be paid for comparable hospital services throughout one *Land*, independent of the care level, hospital structure or other factors. According to the regulations following the 2nd Case Fees Amendment Act, the base rates in 2005 were determined through a 15–85 mix of state-wide and hospital-specific base rates, followed by a 35–65 mix in 2006, a 55–45 mix in 2007 and a 75-25 mix in 2008, so that a uniform price system at *Land* level was in force by 2009. For 2005, the average base rate was €2785, with negotiated state-wide base rates ranging from €2585 in Mecklenburg-West Pomerania to €3000 in Berlin. In 2010, the base rates ranged from €2855 (Schleswig-Holstein) to €3120 (Rhineland-Palatinate).

The convergence phase was completed in full at the beginning of 2010. The equation for hospital remuneration is now nationwide as:

case-mix (or case-mix index × number of cases) × state-based case rate.

If the actual hospital revenue in one year exceeds the agreed hospital revenue budget, the hospital has to pay back 65% of the additional revenue (in the opposite case where actual revenue is less than agreed, it will receive 25% of the shortfall). A second mechanism is in place to deal with increases in the agreed hospital revenue year on year: the base rate for additional case-mix is reduced by 25% (i.e. extra volume is only compensated by 75%).

With the end of the convergence phase, during which the hospital reimbursement system was switched over entirely to the DRG system, the Hospital Financing Reform Act laid out the following measures. Since 2012, investments in hospitals included in the hospital requirement plans (and for psychiatric hospitals as of 2014) may be financed by performance-based flat-rate grants. To this end, criteria were developed by late 2009 for incorporating these grants into the G-DRG system (see section 4.1.1). From 2013, psychiatric hospitals introduced a DRG-like system of remuneration based on per diem remuneration, which has been accompanied by a short-term improvement in staff-related financing.

The Hospital Financing Reform Act also provides for a guideline value since 2011 instead of the previous strict linking of hospital charges to the base wage; the guideline value records the development of costs in the hospital sector without delay and is calculated by the Federal Statistical Office. Another measure included in the Act was the introduction of a support programme to improve the situation of nursing staff in hospitals. To this end, up to 21 000 new nursing positions were partially financed over the course of three years, including the possibility to test new personnel policy measures and work plans. Within the framework of the DRG system of reimbursement, the financing of additional costs arising from the further education of physicians will be reviewed, as will be the financing of practical education of trainees in nursing and the remuneration of trainees in midwifery.

3.6.2 Paying for ambulatory services

Services in ambulatory SHI care or by office-based physicians, dentists, pharmacists (since 2004), midwives and many other health professionals are subject to predetermined price schemes. The most strictly regulated and sophisticated reimbursement catalogues have been developed for physicians and dentists. There are two fee schedules per profession, one for SHI services and one for private treatments. Other price schemes, such as those of the statutory accident funds, are based in large part on these two fee schedules. In the following, details are explained for physicians (including psychotherapists) but are quite similar for dentists.

Physician payment in SHI settings

The payment of physicians by SHI is not straightforward but is subject to a process involving two major steps. First, the sickness funds make total payments to the regional associations of SHI physicians for the remuneration of all SHI-affiliated doctors, in lieu of paying the doctors directly. The only exception is the possibility to conclude selective contracts in the context of integrated care (see section 5.4.3). Second, the regional associations of SHI physicians have to distribute these total payments among SHI-accredited physicians according to the Uniform Value Scale. The system of physician payment was reorganized by the Act to Strengthen Competition in SHI.

Overall remuneration

Until the end of 2008, the total payment was usually negotiated as a capitation per member or per insured person, covering all services by all SHI-affiliated physicians of all specialties. It was paid with discharging effect: that is, all services in all fields that were provided by SHI-affiliated physicians in the regional association of SHI physicians in question had to be covered by this payment. Sickness funds paid these capitations to regional associations depending on the population of insured in the region.

Since January 2009, overall remuneration has had three components. The first, core, component is morbidity-based overall remuneration, which arises from the treatment requirement of the patients, a regional orientation guideline value and the number of insured people per sickness fund. The amount of overall remuneration of care provided by SHI-affiliated physicians has since 2009 been negotiated on an annual basis between the regional associations of SHI physicians and the regional associations of the sickness funds, with morbidity-based overall remuneration for 2009 being calculated on the basis of the data for 2007. By converting the system from a fixed per capita one to morbidity-based overall remuneration, the legislature is seeking to transfer the morbidity risk from the SHI-affiliated physicians to the sickness funds. However, SHI physicians' remuneration remains subject to a ceiling, albeit allocation to the individual funds is on the basis of the treatment needs of their members in comparison with the amount in the preceding period. The second component is the ability to increase payments by the sickness funds to overall remuneration if an unforeseeable need for provision of treatment arises (e.g. an epidemic). The third component is remuneration of individual services that the sickness funds are required to pay at fixed prices over and above the morbidity-based overall remuneration. These particularly eligible services, such as immunizations, screening tests or ambulatory surgery, are not subject to volume ceilings.

Payment of fees

In a second step, the regional associations of SHI physicians share overall remuneration among their members in accordance with the national Uniform Value Scale and the "fee allocation scales" agreed at regional level with the sickness funds in the individual "fee allocation contracts". Prior to allocation to the SHI-affiliated physicians, the individual regional association must check the accounting data of the individual SHI physician and combine these with the data from the other SHI physicians.

All services that can be provided by physicians for SHI remuneration are listed in the Uniform Value Scale. While the coverage decision is made by the Methods Assessment Subcommittee of the Federal Joint Committee (see section 2.7.2), a separate joint committee at the federal level, the Valuation Committee, is responsible for the Uniform Value Scale.

The Uniform Value Scale describes the various services that can be charged by SHI physicians (§ 87 SGB V) and, therefore, has the function of a benefit catalogue and is binding for all practising physicians and for the outpatient care of all those insured through the SHI system. Services are not expressed in monetary form but as points in the Uniform Value Scale. Each SHI physician reports his total number of points for services provided to his regional association at the end of each quarter.

Although, until 2008, physicians received monthly payments based on their services provided up to the time in question, actual remuneration depended on a number of factors. The overall remuneration negotiated with the sickness funds was divided by the total number of points obtained for all SHI-reimbursable services in the regional association of SHI physicians in question. This meant that the monetary value of a point (point value) could not be calculated precisely in advance as it depended on the total number of points obtained. Ultimately, the point value served to calculate quarterly remuneration (for each individual SHI-affiliated physician in accordance with the total value of his or her points). Remuneration was also modified by the fee allocation scale/fee allocation contract, which differed for each regional association of SHI physicians (and by negotiation with the sickness funds regionally). For this, a maximum of points was set up for which the services of a medical practice were paid according to the regular point value. These maximums were group specific and thus different specialized fields had different numbers of total points. If services above these ceilings were offered, the excess was remunerated at a lower point value. The more services offered, the lower the point value and, therefore, the payment. The aim was, on the one hand, to offer the physicians a stable price

for a specified quantity of services and, on the other hand, to effectively reduce the incentive to increase the volume. At the same time, services outside the budget ceiling were agreed and financed, for example immunizations or care of terminally ill patients. Consequently, remuneration of a service could differ depending on the specific regional association of SHI physicians, the field of medicine and the accounting quarter. The point limits specific to the individual physician group were often criticized for transferring the morbidity risk to the physicians in this form of volume control and not having it absorbed by the sickness funds.

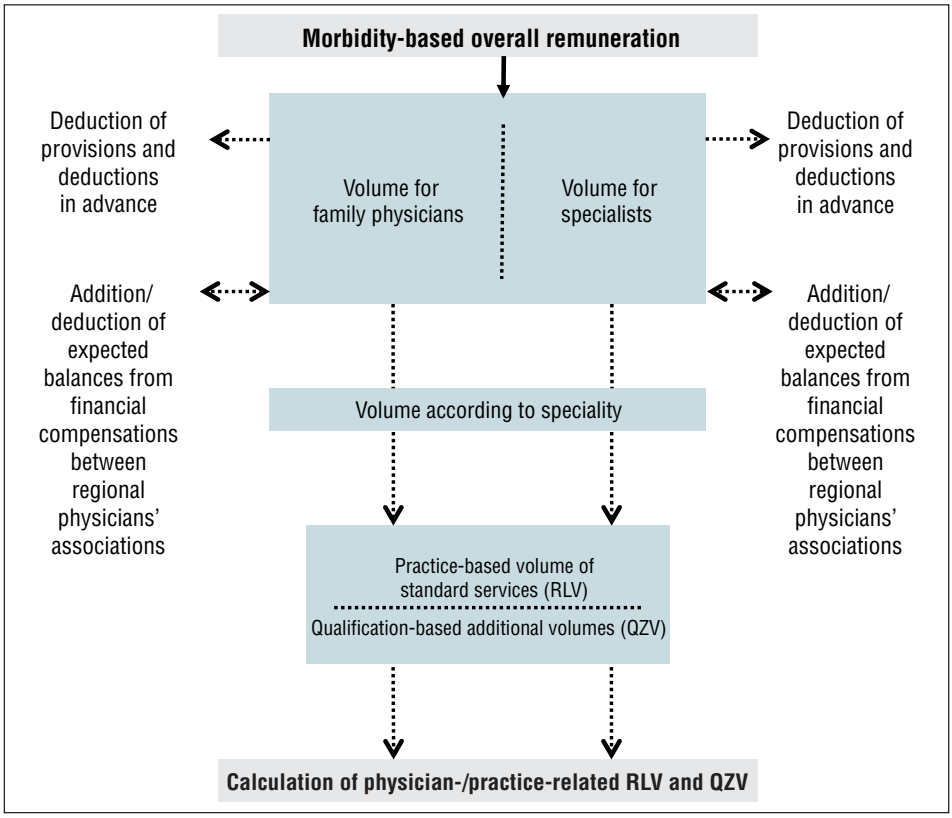
The Act to Strengthen Competition in SHI reformed remuneration of SHI physicians (fee reform). In a first step, a reformed Uniform Value Scale came into effect in January 2008. The 2008 Uniform Value Scale put a higher value on physicians' services by increasing the number of points by an average of around 10% and further standardizing remuneration of family physicians and specialists. However, given the capping still in effect in 2008, the increased value of services in the Uniform Value Scale was not reflected in physicians' fees. With a view to making physicians' income more transparent, something which had not previously been possible with the floating point values, each point was to have a fixed monetary value. To achieve this, the amount of points for the service in question in the Uniform Value Scale was to be set at the uniform guideline value of, at present, 3.5001 cent, thus forming the prices of the Euro Fee Code.

Since January 2009, a practice-based volume of standard services has been calculated for each SHI physician and quarter. The volumes of standard services set the volume of services that a physician can bill in a defined period and that are payable under the Euro Fee Code (§ 87 SGB V). The physician is notified of the prospective volume of standard services at the beginning of each quarter.

The volumes of standard services differ from the expenditure ceilings that previously applied in that the care requirements of the insured are taken into consideration not only with regard to the specific group of physicians but also to the individual practice. A volume of standard services is calculated by multiplying the case rate specific to the physicians' group by the number of cases of the physician and the morbidity-based weighting factor. The number of cases that a physician can cover is subject to a quantity limit in advance. Cases that are above 50% of the specialist group average are only included in the calculation of the volume of standard services in a graduated form. If a physician exceeds the volume of standard services, this has a regressive effect on the amount that he or she receives for the service in question. Critics do not see the introduction of the volumes of standard services as abolition of the "floating point values" but merely as a change to "floating prices".

Fig. 3.11 shows the distribution of morbidity-based overall remuneration since July 2010. A new separation process has split the morbidity-based overall remuneration permanently since the third quarter of 2010 so that the extension of specialist physician services is not at the expense of family physicians and vice versa. Nearly all services paid for out of limited morbidity-based overall remuneration have since then been subject to a volume ceiling. Qualification-based additional volumes (QZV in Fig. 3.11) were introduced to steer the volume of what are known as "discretionary services", such as acupuncture and urgent house calls, for nearly all groups of physicians. The aim was to prevent excessive enlargement of services that were only provided by some physicians yet decreased the allocation of all volumes. Discretionary services were paid for out of morbidity-based overall remuneration, but without a volume limit, at fixed prices until July 2010. The result was that the number of discretionary

Fig. 3.11
Distribution of morbidity-based overall remuneration



Source: Modified from Kassenärztliche Bundesvereinigung, 2010.

services steadily rose and less and less money was available for the volumes of standard services (RLV in Fig. 3.11). With the introduction of the qualification-based additional volume, services were no longer paid for at fixed prices out of the morbidity-based overall remuneration without limitation. The fee reform is intended to stabilize the volumes of standard services and prevent a further decline in case values based on the volumes of standard services.

The regional associations of SHI physicians can also create qualification-based additional volumes for services that were previously contained in the volume of regular services but only billed by some of the physicians in the group of physicians in question (e.g. bronchoscopy, allergology). Fees for such services are specifically directed towards those physicians who provide such services. The case value surcharges (e.g. for ultrasound and psychosomatics at GPs, radiology offered by specialists in other fields) have also been replaced by qualification-based additional volumes. Distribution volumes specific to groups of physicians were formed for volumes of standard services and qualification-based additional volumes to allocate fees as equitably as possible. The regional association of SHI physicians and sickness funds have leeway at the regional level to decide the services for which they will form qualification-based additional volumes and how they calculate payment of these services.

Each SHI physician is allotted a volume per quarter that consists of the volume of standard services allocated to the medical practice and any qualification-based additional volume allocated. It is based on the volume of services of the practice in the same quarter of the preceding year. The volume is a quantity limit up to which a practice receives payment for its services at the prices of the Uniform Value Scale. Volumes of standard services or qualification-based additional volume services are remunerated at a graduated price. The amount of the graduated price depends upon how many standard services and qualification-based additional volume services all specialist physicians and family physicians have billed beyond these limits: 2% of the volume allocable to specialists and family physicians are set aside for payment of these services.

There are flexible offsetting possibilities between the volume of standard services and the qualification-based additional volume. If a practice does not exhaust its volume of standard services, correspondingly more qualification-based additional volume services can be billed at the prices set out in the Euro Fee Code, and vice versa. The distribution of fees shown in Fig. 3.11 only concerns services paid for out of morbidity-based overall remuneration. Services such as routine check-ups and ambulatory surgery that the sickness funds pay outside the morbidity-based overall remuneration are still paid for at the prices of the Euro Uniform Value Scale without limitation.

Audits

Remuneration is also subject to control mechanisms in order to prevent inadmissible remuneration claims (invoice audit pursuant to § 106a SGB V) and an "inefficient" provision of services (audit pursuant to § 106 SGB V). The latter comprises conspicuousness tests and random tests. The conspicuousness test relates exclusively to the prescription of pharmaceuticals and medical aids exceeding by more than 15 and/or 25% the agreed reference volumes (see section 5.6.6). The random test examines the necessity, effectiveness, quality, efficient provision and, if applicable, the compliance with treatment and cost plans for dental and other medical treatment as well as prescriptions by dentists and other physicians. It is carried out in the form of a random sample test per physician and per insured individual for at least 2% per quarter of the SHI dentists and other SHI physicians. For example, it considers whether physicians have carried out and/or initiated specific services, sick notes or prescriptions significantly more frequently than colleagues in the same field of specialization under similar practice conditions. In order to prevent regress, physicians have to prove that higher service data and hospitalization frequencies may, for example, reflect a higher degree of severity of their patients' illnesses. The claims review committees and the complaints committees (as the first instances of appeal) that carry out these audits are composed of equal numbers of representatives of physicians and of sickness funds.

Size of fees

An analysis of the development of SHI-affiliated billing (Table 3.8) shows that between 1999 and 2009 remuneration per physician and expenditure per case (i.e. all services for one patient per physician per three months) increased by 21% and 45%, respectively.

The income of SHI-affiliated physicians is comparatively high, partly as they have further sources of income in addition to that from SHI (not shown in Table 3.8). In particular, income from treating privately insured patients and direct patient payments have risen significantly. According to the Federal Association of SHI Physicians, average revenue of a GP was €184 400 in 2009 (Table 3.9). The highest fees are received by internists and radiologists while the fees of psychotherapists are comparatively low.

With regard to the revenues listed in Table 3.9, it should be remembered that they do not reflect the net earnings of a medical practice. To see these, labour costs, expenditure on materials and outside laboratory work as well as expenditure on rent/leasing and other expenses have to be deducted (Fig. 3.12). The difference between the comparatively low revenue of a psychotherapist

Table 3.8

Number of SHI-affiliated physicians and psychotherapists, cases and remuneration, 1999–2009

Year	SHI-affiliated physicians and psycho-therapists	Remuneration for all physicians/ psycho-therapists (€ billions)	Remuneration per physician/ psycho-therapist (€)	Cases[a] (millions)	Expenditure per case (€)	Cases related to (contributing) SHI members and year	Expenditure per insured member (€)
1999	121 930	21.7	177 646	551.3	39.3	10.8	425.5
2000	126 487	2.5	177 614	557.1	40.3	10.9	440.3
2001	128 333	23.2	181 003	565.4	41.1	11.1	455.5
2002	131 251	23.8	181 430	573.0	41.6	11.2	467.2
2003	129 950	24.2	186 066	582.7	41.5	11.5	476.4
2004	130 278	24.1	184 996	540.5	44.6	10.7	476.1
2005	133 239	24.8	186 153	480.7	51.6	9.5	492.0
2006	134 780	25.6	189 591	463.1	55.2	9.2	506.3
2007	135 683	25.9	190 893	472.0	54.9	9.3	510.4
2008	138 394	26.6	192 526	479.9	55.5	9.4	523.0
2009	135 434	28.7	211 911	503.7	57.0	9.9	562.3
Change 1999–2009 (%)	+10	+32	+21	–9	+45	–8	+32

Source: Kassenärztliche Bundesvereinigung, 2014.
Note: [a]A case is defined as one or more patient contacts with one and the same physician per quarter.

Table 3.9

Revenue of physicians according to specialist fields, 2009[a]

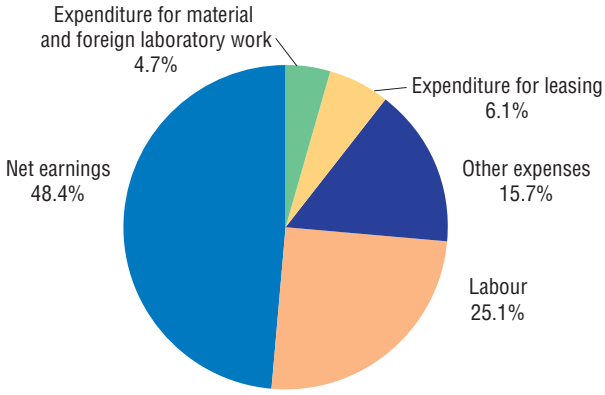
Specialist field	Remuneration(€)
Dermatologists	178 400
ENT physicians	170 800
Family physicians	184 800
Gynaecologists	189 200
Internists	409 900
Neurologists	133 200
Ophthalmologists	227 900
Orthopaedics	235 400
Paediatricians	192 800
Psychiatrists[b]	65 500
Radiologists	381 500
Surgeons	211 600
Urologists	197 700

Source: Kassenärztliche Bundesvereinigung, 2014.
Notes: [a]Relates to SHI-affiliated physicians with four quarterly accounting periods per year, physicians in joint practices with different fields of medicine are not taken into consideration; [b]Includes psychological psychotherapists as well as child and youth psychologists.

and that of an internist or radiologist can only be explained by this to a limited extent. The monthly net earnings of a psychotherapist were, on average, 70.2% of revenue in 2011 as, in particular, material for diagnostics was low, at just 0.7%. This corresponds to average monthly earnings of €3679. Average net earnings of an internist are 46.6% of revenue (€15 849) and those of a GP are 51%, corresponding to €7854 monthly (Statistisches Bundesamt, 2013e).

Fig. 3.12

Average cost structure in medical practices, expenses and net earnings as percentage of revenues, 2011



Source: Statistisches Bundesamt, 2013e.

According to OECD data, the annual income of a GP was €116 000 in 2007, while that of a specialist physician was €157 000 on average. Therefore, the income of physicians in independent practice was between three and five times the average annual income of a blue-collar worker (OECD, 2013a).

Payment in private delivery settings

In private delivery settings, payment of health personnel is organized differently. For physicians and dentists, the catalogues for private tariffs are valid in ambulatory as well as inpatient care, and for patients paying out of pocket as well as using PHI. They are based on fee for service and are determined by the Federal Ministry of Health, which is advised by the professional bodies concerned. In the Catalogue of Tariffs for Physicians, for example, each procedure is given a tariff number and a certain number of points, which – multiplied with a point value of €0.0582873 – is the single charge rate. In addition, the maximum charge rate is indicated, which is 3.5-fold higher than the single rate, but for most services physicians charge a 2.3-fold

rate and for certain services they may charge only a 1.7-fold rate. Furthermore, the Catalogue lists the requirements for reimbursement, such as the duration, performance, documentation or limits concerning the combination of several tariff numbers. However, the Catalogue does not reflect daily practice very well. Many services are subsumed under more general items, such as counselling on preventive self-medication and lifestyle (No. 34; single charge rate: €17.49 and 2.3-fold rate: €40.23 in the Catalogue of Tariffs for Physicians).

The list of "individual health services" presents a selection of "services deliverable on demand of patients" from the Catalogue of Tariffs for Physicians. Services presented there may be (proactively) offered to patients paying out of pocket in addition to the comprehensive range of SHI benefits. However, the services may only be provided as a supplement to the SHI catalogue of benefits. The list of individual health services contains services that make sense medically in the individual case but do not number among the responsibilities of SHI (e.g. special immunizations for vacation travel). The list of individual services also includes those whose diagnostic and therapeutic benefits are questionable or risky (e.g. ozone therapy). They also include insufficiently tested methods whose risks have so far not been investigated at all or only insufficiently and thus are not calculable.

The prices of the provision of services in private settings are not set uniformly in most of the other health service professions. However, the associations representing the individual health service professions, for example physiotherapists or nonmedical practitioners, make recommendations on fees that patients and individual service providers can use as a reference and that can serve as a basis if no different provisions are contained in the treatment contract.

3.6.3 Paying for employed health workers

Physicians and other health professionals working in hospitals or institutions for nursing care or rehabilitation are paid by salaries. Public and non-profit providers usually pay public tariffs, while for-profit providers may pay lower or higher salaries or additional payments. From autumn 2004, junior doctors are granted the full licensure ("approbation") immediately after medical studies. Between 1988 and 2003, junior doctors had been granted a preliminary approbation with restricted competencies (e.g. excluding signing death certificates and medical opinions) and higher requirements to document continuing education. The last pay structure survey conducted by the Federal Statistics Office in 2006 showed that the average gross annual pay of a physician in full-time employment was at

that time €75 733, including €4375 in the form of additional payments such as Christmas and holiday pay or performance bonuses (Statistisches Bundesamt, 2009). Since then, however, wages for physicians have increased noticeably.

4. Physical and human resources

4.1 Physical resources

4.1.1 Capital stock and investments

Since the Hospital Financing Act of 1972, hospitals have been financed by two different sources: "dual financing" means financing investments through the *Länder* and running costs through the sickness funds, plus private health insurers and self-pay patients (see section 3.6.1). In order to be eligible for investment costs, hospitals have to be listed in the hospital requirement plans set by the *Länder* (see section 2.8.6).

Since the late 1990s, public investment in hospitals has declined continuously, from €3494 million in 1998 to €2724 million (or €5433 per bed) in 2012. This represented a real decline of 22%. The share of public investment in hospitals has decreased continuously from 0.24% of GDP in 1991 to 0.10% in 2012. Of the public investment in 2012, hospitals in the western part of the country received 83%, and hospitals in the eastern part 17% (Deutsche Krankenhaus Gesellschaft, 2014).

Approaches to hospital requirement plans, capacities and investment vary widely among the *Länder* (Table 4.1). Between 1991 and 2012, Berlin reduced its initially highest per capita bed numbers by almost 50% and is now below the nationwide average. Hamburg and Bremen, which like Berlin are both cities and *Länder*, still have higher than average capacities despite substantial reductions; in fact, Bremen has the highest capacity, at 7.9 beds per 1000 population. Schleswig-Holstein and Baden-Wurttemberg, which already had the lowest capacities, reduced capacity yet further (by 17% and 23%, respectively) and together with Lower Saxony (reduction of 36%) have the lowest density of hospital beds. By comparison, as a result of only modest reductions, Bavaria has moved to average per capita levels. Bremen, Thuringia, Saxony-Anhalt and Hamburg have the highest capacities (Table 4.1).

Table 4.1
Hospital bed numbers 1991–2012 and capital investment 2012 in the 16 *Länder*

Länder	General and psychiatric beds per 1 000 population (ratio to German average)		Change in density (%)	Capital investment (€/bed)[a]
	1991	2012	1991–2012	2012
Baden-Wurttemberg	7.0 (0.84)	5.4 (0.86)	–23	6 793
Bavaria	7.6 (0.92)	6.1 (0.98)	–20	6 584
Berlin	11.6 (1.40)	6.0 (0.96)	–48	4 734
Brandenburg	9.0 (1.08)	6.2 (1.00)	–31	7 481
Bremen	10.7 (1.28)	7.9 (1.26)	–26	5 582
Hamburg	9.2 (1.10)	7.0 (1.13)	–24	8 790
Hesse	7.5 (0.91)	6.0 (0.97)	–20	6 666
Lower Saxony	7.5 (0.90)	5.4 (0.87)	–36	5 855
Mecklenburg-West Pomerania	8.4 (1.01)	6.5 (1.04)	–23	6 142
North Rhine-Westphalia	9.2 (1.10)	6.9 (1.10)	–25	4 075
Rhineland-Palatinate	7.7 (0.92)	6.4 (1.02)	–17	4 721
Saarland	8.8 (1.06)	6.5 (1.04)	–26	4 981
Saxony	9.1 (1.09)	6.5 (1.04)	–29	3 858
Saxony-Anhalt	9.0 (1.08)	7.2 (1.15)	–20	3 253
Schleswig-Holstein	6.9 (0.83)	5.7 (0.91)	–17	5 304
Thuringia	8.8 (1.06)	7.5 (1.20)	–15	3 082
Germany	**8.3 (1.00)**	**6.2 (1.00)**	**–25**	**5 433**

Sources: From data in Statistisches Bundesamt, 2013c; [a]Deutsche Krankenhaus Gesellschaft, 2014.

In international data, "preventive and rehabilitative institutions" are often included in hospital data. These institutions, however, are not listed in hospital requirement plans and receive no state investment. To finance their capital and recurrent costs, they have to rely on (depreciation by) reimbursement through negotiated contracts (monistic financing) or on investments by their owner.

4.1.2 Infrastructure

The German inpatient care sector, also by international comparison, is large and varied, and has a structure that is confusing at first sight. A basic distinction which must be made by law is between hospitals and institutions for prevention and rehabilitation (§ 107 SGB V); international "hospital" comparisons, however, often include both groups, which must be taken into consideration when interpreting the data.

Both groups can be differentiated into up to five subgroups according to their ownership structure and/or their legal status. The Federal Statistical Office furthermore divides hospitals into "general" and "others", the latter also comprising two entirely different groups: (1) hospitals with exclusively

psychiatric, psychotherapeutic and/or neurological beds (hereinafter abbreviated as "psychiatric") and (2) pure day or night hospitals that do not have any "beds" as defined by the statute. The SGB V, however, categorizes hospitals in accordance with their contractual status within the SHI into three groups (§ 108 SGB V), to which then, as a matter of logic, a fourth group has to be added for hospitals without SHI contracts. Institutions for prevention and rehabilitation are only distinguished into those "with" and those "without" service contracts. The type and status of an institution is, in particular, decisive for the funding of investments and services. Table 4.2 provides an overview, including the numbers for institutions and beds in 2012.

In 2012, there were 2017 hospitals with 501 475 beds (6.2 beds per 1000): 601 were publicly owned, 719 were private non-profit and 697 were private for-profit hospitals, with bed shares of 48%, 34% and 18%, respectively. Among the public hospitals, 57% of beds (27% of all beds) were in 354 institutions under private law ("corporatized") and 43% (21%) in 247 institutions under public law; the latter group can be subdivided into 108 dependent and 139 independent ("autonomous") institutions. The 264 psychiatric hospitals had 43 101 beds (9%) and the 1692 general (or acute) hospitals had 458 374 beds (91%); in addition, there were 61 pure day or night hospitals – officially without beds. The beds in general (acute) hospitals were divided into 9% (of total beds) in the 34 university hospitals, 80% in the 1392 hospitals enlisted in state hospital requirement plans, 1.4% in 79 hospitals additionally contracted by sickness funds according to § 109 SGB V and 0.8% in 187 hospitals without such contracts (i.e. purely for privately insured and self-paying patients) (Statistisches Bundesamt, 2013c).

In all, 99% of beds were accessible to SHI-covered patients and 98% were in hospitals with owners entitled to investments from the *Länder* independent of hospital ownership – either because of their university status and funding according to the University Capital Investment Act (*Hochschulbaufördergesetz*) or their enlistment in the hospital requirement plans and funding according to the Hospital Financing Act (see section 3.6.1).

In addition to acute care, 1212 institutions with 168 968 beds (2.1 beds per 1000) were dedicated to preventive and rehabilitative care in 2012. Compared with general hospitals, ownership is very different for prevention and rehabilitation institutions, with 19% (232) being publicly owned, 26% (321) being non-profit and 55% (659) being for-profit. With regard to bed shares, 18% of beds were in publicly owned facilities, 16% of beds were in non-profit facilities, and 66% of beds were in private facilities. In

Table 4.2

The inpatient care sector: capacities (number of institutions and beds) by ownership, function, contract status and reimbursement, 2012

By ownership	By function	By SHI-contract status	Investment costs	Payment to provider
Hospitals: 2017/ 501 475 beds (100%)				
Publicly owned: 601/ 240 180 (48%) • public-law: 247/ 103 836 (21%) – *dependent*: *108/ 34 344 (7%)* – *independent ("autonomous")*: *139/ 69 492 (14%)* • private-law ("corporatized"): 354/ 136 344 (27%)	General (or acute) hospitals: 1692/ 458 374 (91%)	[1] university hospitals: 34/ 44 244 (9%)	Taxes (University Capital Investment Act)	DRGs (see section 3.6.1)
		[2] hospitals enlisted in state hospital requirement plans: 1392/ 403 307 (80%)	Taxes (Hospital Financing Act)	
		[3] hospitals additionally contracted by sickness funds: 79/ 6 969 (1.4%)	Owner	
		[4] hospitals without contracts: 187/ 3 854 (0.8%)	Owner	–
Private non-profit: 719/ 171 276 (34%) Private for-profit: 697/ 90 019 (18%)	Psychiatric hospitals: 264/ 43 101 (9%)	[2], [3] or [4]	Dependent on SHI contract status	Per diems
	Pure day or night hospitals: 61/ 0 (0%)			Per diems
Preventive and rehabilitative institutions: 1212/ 168 968 beds (100%)				
Publicly owned: 232/ 30 633 (18%) • public-law: 154/ 22 444 (13%) – *dependent*: *114/ 18 203 (11%)* – *independent ("autonomous")*: *40/ 4 241 (3%)* • private-law ("corporatized"): 78/ 8 189 (5%)		with contracts: 1119/ 161 398 (96%)	Owner	Per diems
Private not-profit: 321/ 27 136 (16%) Private for-profit: 659/ 111 199 (66%)		without contracts: 93/ 7 570 (4%)	Owner	–

Source: Statistisches Bundesamt, 2013c,d.

publicly owned institutions, 27% of beds (5% of total) were in institutions under private law ("corporatized") and 73% (13%) in institutions under public law, with very few of them in institutions with independent ("autonomous") status. In total, 96% of prevention and rehabilitation care facilities had been contracted by the sickness funds (and were thus able to provide care to SHI-covered patients) (Statistisches Bundesamt, 2013d).

Table 4.3 shows a substantial shift in the provision of inpatient care. While the number of beds in homes for elderly and long-term care more than doubled between 1996 and 2009 (see section 5.8), the numbers of acute hospital beds decreased substantially, at least until 2006. In psychiatric hospitals, the decrease took place mainly in the first half of the 1990s (see section 5.11). In prevention and rehabilitation institutions, the number of beds increased in the 1990s and has since then fallen very slowly (see section 5.7).

Table 4.3

Number of beds in hospitals and homes and other operating indicators, 1991–2011, selected years

	1991	1996	2002	2006	2007	2008	2009	2010	2011
Beds (per 100 000 inhabitants)[a]									
Hospital beds[b]	10.1	9.6	8.9	8.3	8.2	8.2	8.2	8.3	8.3
Acute hospital beds	7.5	6.7	6.1	5.7	5.7	5.7	5.7	5.7	5.3
Psychiatric hospital beds	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.2
Nursing & elderly home beds[c]	-	4.2	-	-	9.7	-	10.3	-	-
Operating indicators[d]									
Cases per 100 inhabitants[e]	18.2	19.7	21.1	20.4	20.9	21.3	21.8	22.1	22.8
Average length of stay (in days)	12.8	10.8	9.2	8.5	8.3	8.1	8.0	7.9	7.7
Occupancy days (millions)	186.0[b]	175.2	159.9	142.3	142.9	142.5	142.4	141.9	141.7
Occupancy rate (in %)	84.1	80.6	80.1	76.3	77.2	77.4	77.5	77.4	77.3

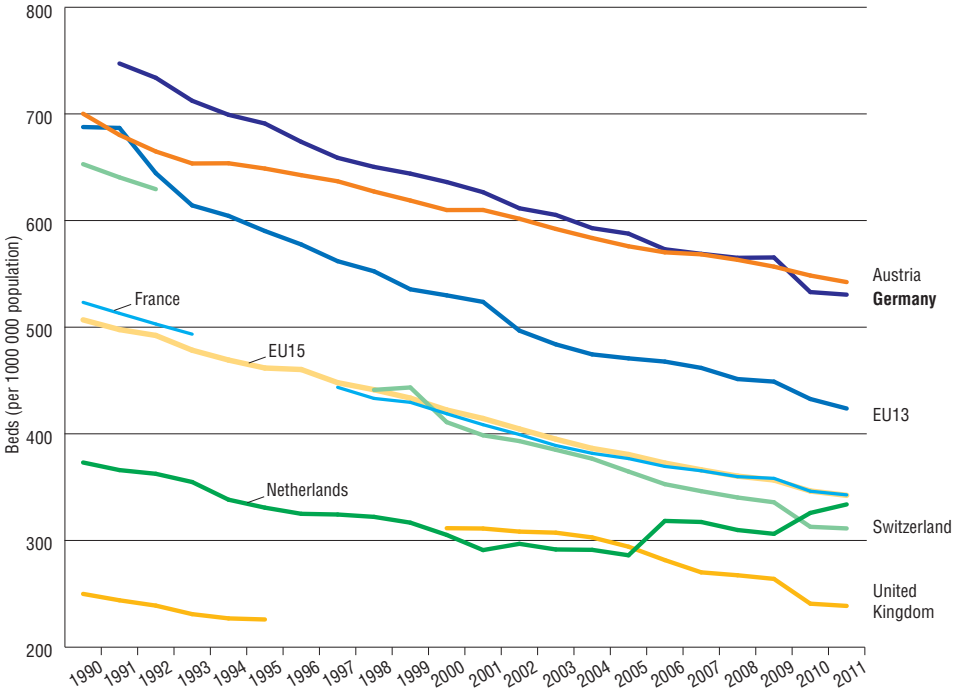
Sources: [a]OECD, 2013a; [d]Statistisches Bundesamt, 2013c.
Notes: [b]Including prevention and rehabilitation institutions; [c]Since 1999, including elderly home beds in institutions for disabled; [e]As of 2011, calculated using the average population on the basis of census 2011; up to 2010, calculated using the average population on the basis of previous censuses.

In 2011, there was a total of 18.3 million hospital admissions in Germany, which represents a slight increase of 2% compared with the previous year. The average length of stay decreased steadily between 1991 and 2011, falling from 12.8 to 7.7 days. This explains why the bed occupancy rate in Germany has not increased despite the shrinking number of hospital beds. Between 1991 and 2011, the bed occupancy rate fell 6.8 percentage points, from 84.1% to 77.3% (Table 4.3).

Although acute hospital beds have been reduced substantially since 1991, the number of acute hospital beds is still almost 60% higher than the EU15 average (Fig. 4.1) since capacities were decreased in the other countries as well.

Fig. 4.1

Hospital beds in acute hospitals per 100 000 population in Germany and selected countries, 1990–2011 or latest available year



Source: WHO Regional Office for Europe, 2013 (January).

4.1.3 Medical equipment

Capital investment in high-cost medical equipment is financed by the *Länder* for hospitals that are included in the hospital requirement plans (see section 4.1.1). Table 4.4 shows the increase in capacities of expensive diagnostic and therapeutic medical technologies before and after the abolishment of intersectoral planning of high-cost technologies in 1997 (see section 2.8.5). Besides increasing capacities in hospital care, an increase is also found in ambulatory care. In the early 1990s, the density of MRI use was even higher

in the ambulatory sector than in the inpatient sector. In 2012, hospitals in Germany had over 11 305 high-cost medical devices, including 1463 computed tomographs and 5404 dialysis machines.

Table 4.4

High-cost medical technologies in the hospital sector per million inhabitants, 1994–2011

	1994	1997	2000	2005	2006	2007	2008	2009	2010	2011
Computed tomography	8.2	9.6	12.2	15.4	15.8	16.3	16.7	17.2	17.7	18.3
MRI	1.8	3.2	4.9	7.1	7.7	8.0	8.7	9.5	10.3	10.8
Positron emission tomography	0.4	0.4	0.5	0.8	0.9	1.0	0.9	1.2	1.4	1.5
Radiation therapy devices	4.5	4.5	4.8	4.7	4.7	4.7	4.7	4.8	5.0	5.0
Lithotripsy	1.9	2.4	3.0	3.7	3.8	3.9	3.9	4.0	4.0	4.0

Source: OECD, 2013a.

4.1.4 Information technology

Information and communication technologies in the health care sector are ascribed increasing importance with regard to efficient utilization of resources, improvement of service quality and an increased patient orientation (Busse, Zentner & Schlette, 2006). Within the framework of the action plan "eEurope" for the promotion of the development of the information society in the EU, the initiative "eHealth" was started in 2004 for the health sector. In this context, the EU Member States are required to develop international standards for the exchange of health data (European Commission, 2012).

In Germany, the introduction of the electronic health card (eGK) is supported by the Federal Ministry of Health in the context of the development of electronic health services. Since 1995, individuals insured in the SHI possess an electronic health insurance card on which the individual's administrative data are stored for billing purposes. Through the SHI Modernization Act of 2004, the future development of the insurance card into an electronic health card was resolved.

The introduction of the eGK and its further development, as well as the creation of the required infrastructure, is the obligation of the corporatist associations and of gematik, which was founded in 2005. More than five years after the originally planned date in 2006, eGK was finally partially introduced during the last quarter of 2011. The introduction was carried out in stages: in a first step, all hospitals, physician practices and pharmacies were furnished

with the new reader devices for the eGK (basic roll-out). In a second step, approximately 10% of the insured individuals were provided with the new chip eGKs by their sickness fund by the end of 2011 (gematik, 2012). Since January 2014, the eGK has been considered as proof of entitlement to use services where patients have already received a new card; however, this has not been achieved nationwide.

The eGK contains the same administrative data as the old health insurance card. These include name, address, date of birth, sex, insurance number, insurance status and cost-sharing status. From the technical point of view, the eGK is designed in a manner that will allow medical data to be stored in future expansion stages, such as emergency data (e.g. allergies, drug intolerances) as well as references to patient health care directives and organ donation declarations. In future, it may, for instance, also be possible to store drug documentation, vaccination documentation or an electronic patient file. While the storage of administrative data is mandatory, patients can voluntarily decide on the management of their personal medical data. Most sickness funds will furnish the back of the eGK with a European insurance certificate. It allows the unbureaucratic provision of medical services in all 28 EU Member States as well as in Iceland, Liechtenstein, Norway and Switzerland (Bundesministerium für Gesundheit, 2011b).

The criticism that is probably being discussed most in the context of the eGK is the safeguarding of data protection and the prevention of data abuse (Dittrich & Blum, 2008). In order to prevent the abusive use of services, every insured individual is provided with a card including a photograph (with the exception of children below 15 years of age and individuals requiring a high level of long-term care). A processor in the card makes it possible to store sensitive health information on the eGK in an encrypted manner and protect it against unauthorized access. Medical information can only be decrypted and read by physicians and other medical professionals if the patient and the physician have given their consent. The patient's key is the eGK the physician's key is the electronic health professional card. Both must introduce their cards into the practice's or hospital's card terminal (two key principle). Furthermore, they must consent to the accessing of the medical data by entering a PIN. An exception in this context will be for emergency data (Bundesministerium für Gesundheit, 2011b).

The prerequisites for the utilization of information technologies in the health care sector are in general fulfilled in Germany, although there are fluctuations with regard to the population's age and social status. Pursuant to information

provided by the Federal Statistical Office, 76% of German households owned a computer and 69% had Internet access in 2008. Here, the availability of Internet access correlates with the amount of the monthly net household income: 46% of the households with incomes below €1100 had Internet access, whereas 92% of those with incomes above €2600 had access.

Social status also plays a role with regard to the availability of communication and information technology. While in 2007 a large proportion of self-employed and employed workers owned a computer (93% and 90%, respectively), the proportion for unemployed people was merely 49% (Statistisches Bundesamt, 2008a).

Private use of the Internet by those aged 10 years and over was at 58% in 2004 and increased to 71% by 2008. In 2008, the usage rate varied slightly among the sexes (76% of men and 66% of women stated that they were using the Internet) but varied significantly with age: 95% of the population aged 10–24 years used the Internet, 87% aged 25–54 years and merely 36% of those over 55 years (Statistisches Bundesamt, 2013a).

In 2006, 95% of all family physicians in Germany used computers in their practices, which was above the EU15 average of 77%. In addition, 26% of practices had their own web sites and 48% used electronic patient files for their internal work (Dubois, McKee & Nolte, 2006). Pursuant to a survey on computer and Internet use carried out in 2007 among family physicians across the EU (Dobrev et al., 2008), 99% in Germany had a computer in their practice (EU average 87%, Estonia, Finland, Sweden and Hungary 100%) and 85% even had computers in their consulting rooms (EU 78%, Finland 100%). In Germany, 59% had Internet access (EU 69%, Estonia and Finland 100%), but only 40% had a broadband connection (EU 48%, Finland 93%). The main type of use, with 93% of German family physicians, was handling administrative patient data (EU 80%, Finland and Hungary 100%); 72% used their computer for physician–patient consultation and/or to assist in finding diagnoses or therapies, for example with specialist systems (EU 66%, Finland 100%). However, Internet connections to other service providers were used relatively rarely: only 6% were connected with other family physicians (EU 21%, Finland 68%), 8% with specialist physicians (EU 11%, Denmark 70%), and only 4% with hospitals (EU 20%, Denmark 76%); this is on a level within the EU with Bulgaria and ahead only of Romania and Latvia. In Germany, hardly anything but laboratory data is being exchanged electronically (63%; EU 40%, Denmark 96%), while, for example, electronic prescriptions were not being used at all up to 2008 (EU 6%, Denmark 97%) (Dobrev et al., 2008).

4.2 Human resources

4.2.1 Health workforce trends

Health care is an important employment sector in Germany, with 4.9 million residents working in the health sector, accounting for 11.2% of total employment at the end of 2011. Between 2000 and 2011, the number of people working in the health sector increased by a total of 600 000, or 14.6%. Of the 4.9 million residents working in the health care sector, 3.3 million were in health care, 244 000 were in health industries and 1.4 million in other professions such as cleaning and kitchen staff in hospitals. A total of 2.0 million worked in inpatient care or day care and 2.2 million in ambulatory care. Another 0.04 million worked in health protection, 0.06 million in emergency services, 0.19 million in other facilities, and 0.2 million in administration (Statistisches Bundesamt, 2013b).

Between 2000 and 2011, additional jobs were created, in particular in health services and social occupations: the number of physiotherapists increased by 106%, and the number of elderly caregivers by 83%. When broken down according to facilities, the increase in the number of jobs took place primarily in the area of ambulatory care, especially in non-physician practices (+171 000, or +75%), ambulatory nursing care facilities (+104 000, or +56%) and physician practices (+84 000, or 14%) (Statistisches Bundesamt, 2013b). Of the 4.9 million residents working in the health care sector, 68% worked full time and 32% worked part-time, which corresponds to 3.7 million full-time equivalents (Statistisches Bundesamt, 2013b).

In 2011, the workforce in general and psychiatric hospitals amounted to 1.1 million (another 170 000 worked in inpatient institutions for prevention and rehabilitation and another 661 000 in inpatient care and day-care clinics) (Statistisches Bundesamt, 2013b). The number working in the inpatient sector has increased steadily since the 1990s although the structure of employment shifted during this period. While maintenance and technical employees decreased as a result of outsourcing, the number of physicians, nurses and personnel in medical technical service increased. Table 4.5 outlines trends in human resources and graduates in different professions since 1991 according to WHO data.

Over the past 50 years, the number of physicians has increased steadily. The average annual increase was 3% in the 1980s and 2% in the 1990s. Since 2000, there has been an average decrease of 1%. In 2012, however, the number of physicians increased 2.1% compared with the previous year (Bundesärztekammer, 2014).

Table 4.5
Health care workforce per 100 000 population, 1991–2011

	1991	1995	2000	2005	2007	2008	2009	2010	2011
Physicians	276.4	306.5	326.0	341.1	350.3	355.7	363.8	373.2	382.4
General practitioners	58.1	66.4	66.2	66.6	66.1	65.4	65.4	65.9	65.8
Dentists	65.1[a]	70.5	73.5	75.6	76.6	77.4	78.5	79.5	80.1
Pharmacists	52.0	54.7	58.3	58.3	60.2	60.8	60.9	61.9	61.9
Nurses	–	–	978.3	1 044.1	1 071.0	1 093.5	1 126.1	1 140.0	1 154.3
Midwives	–	–	18.3	20.6	21.9	21.9	23.2	23.2	23.2
Physicians graduated	14.2[b]	12.5	11.1	10.7	11.6	12.1	12.5	12.1	11.7
Pharmacists graduated	2.5	2.2	2.4	2.2	2.2	2.2	2.3	2.3	2.3
Dentists graduated	3.1	2.6	2.3	2.0	2.1	2.2	2.2	2.6	2.7
Nurses graduated	–	30.7[c]	28.7	28.3	26.8	27.1	27.5	28.2	27.6

Source: WHO Regional Office for Europe, 2013.
Notes: [a]1992; [b]1993; [c]1996.

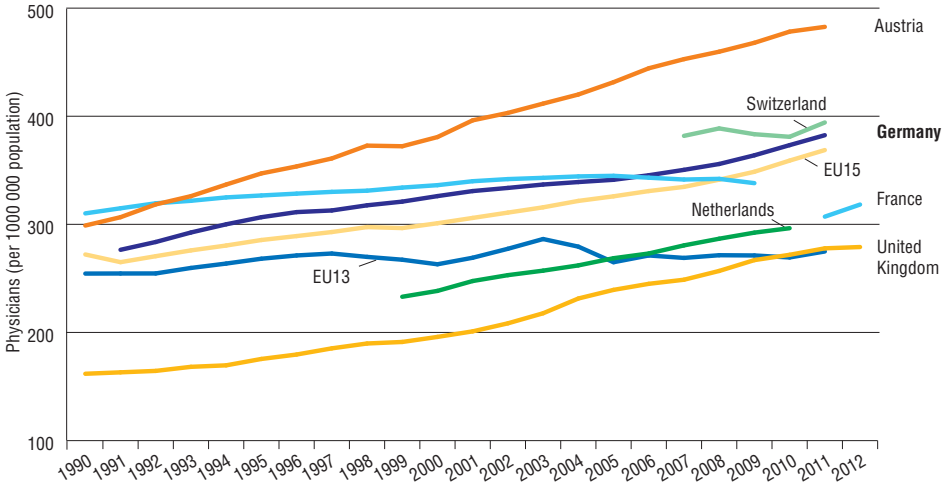
Of a total of 459 021 physicians in 2012, 348 695 were active. Of all active physicians, 174 829 practised in hospitals, 144 058 in ambulatory care (about 123 000 as SHI-accredited physicians, about 21 000 as employed physicians in SHI physician practices). Another 29 808 physicians worked in the public health care sector, administration, government or other sectors (e.g. pharmaceutical industry) (Bundesärztekammer, 2014). According to WHO data, which exclude the latter two groups, 382 physicians per 100 000 were practising in 2011 (WHO Regional Office for Europe, 2013; Table 4.5). The density of physicians was slightly above the EU15 average and substantially higher than the EU13 average, but below the averages in Austria and Switzerland (Fig. 4.2).

Whereas the number of physicians in general has increased continuously in recent years, the number of qualified GPs has decreased, both in relation to the population and especially in relation to all physicians. However, since an increasing number of internists and paediatricians followed incentives to focus on practising primary care, the ratio of "family physicians" to practice-based specialists is currently 1 to 1.

The number of dentists per 100 000 population has increased steadily since the late 1990s, reaching 80 in 2011 according to WHO. This is higher than average compared with other EU countries (Fig. 4.3).

Fig. 4.2

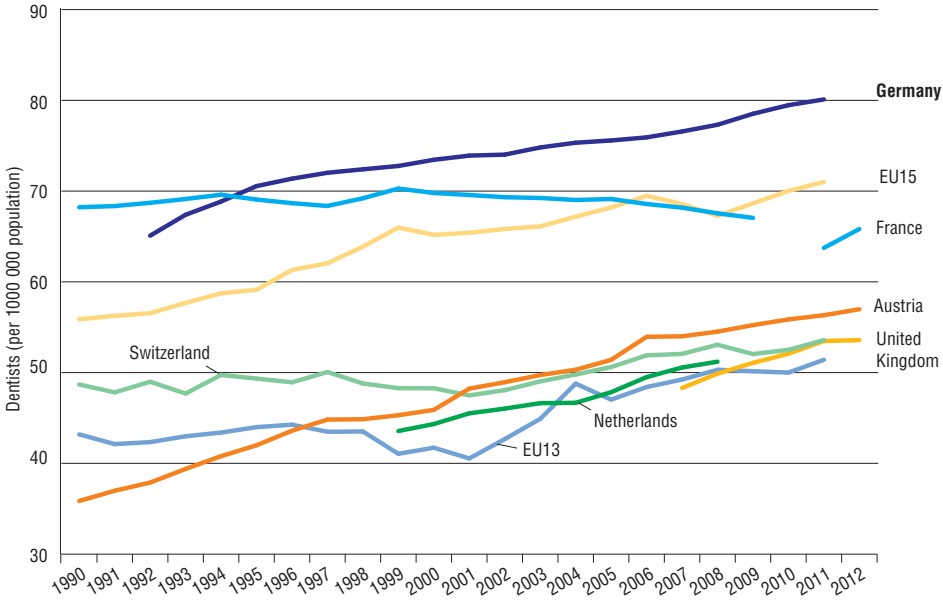
Number of practising physicians in Germany and selected countries per 100 000, 1990–2012 or latest available year



Source: WHO Regional Office for Europe, 2013.

Fig. 4.3

Number of practising dentists in Germany and selected countries per 100 000, 1990–2012 or latest available year

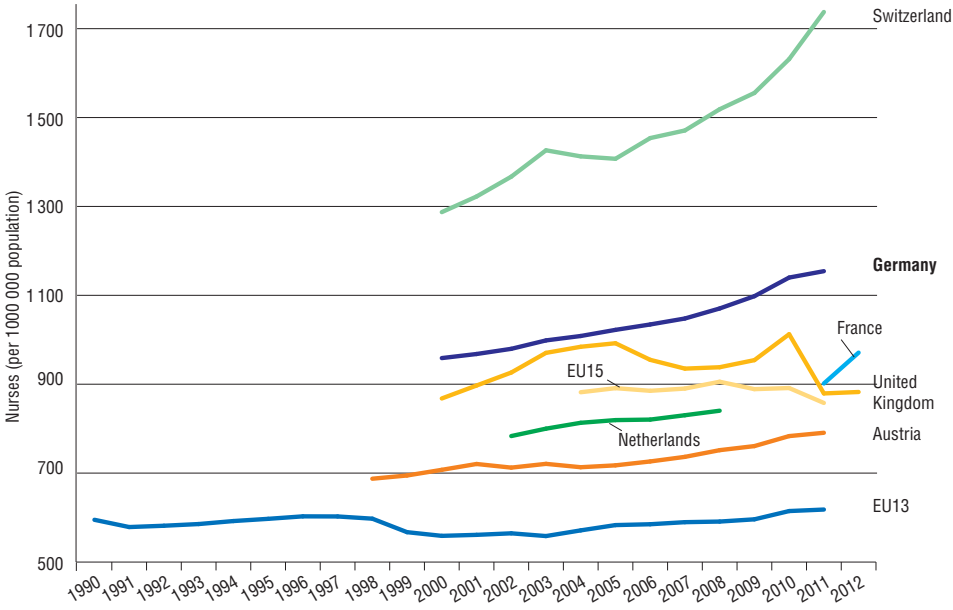


Source: WHO Regional Office for Europe, 2013.

The number of nurses has also increased substantially, especially during the 1990s, when long-term care insurance was introduced and provided more jobs in ambulatory care (see section 5.8). From 2000 until 2012, the number of registered nurses and midwives together increased from 718 000 to 826 000. When part-time work is taken into account, nurses accounted for 590 000 full-time equivalents (Statistisches Bundesamt, 2013b). According to WHO data, the number of nurses (11.5 per 1000) in 2011 ranked above the EU28 average (8.4 per 1000), but far below the average of Switzerland (17.4 per 1000) (Fig. 4.4).

Fig. 4.4

Number of nurses in Germany and selected countries per 100 000, 1990–2012 or latest available year

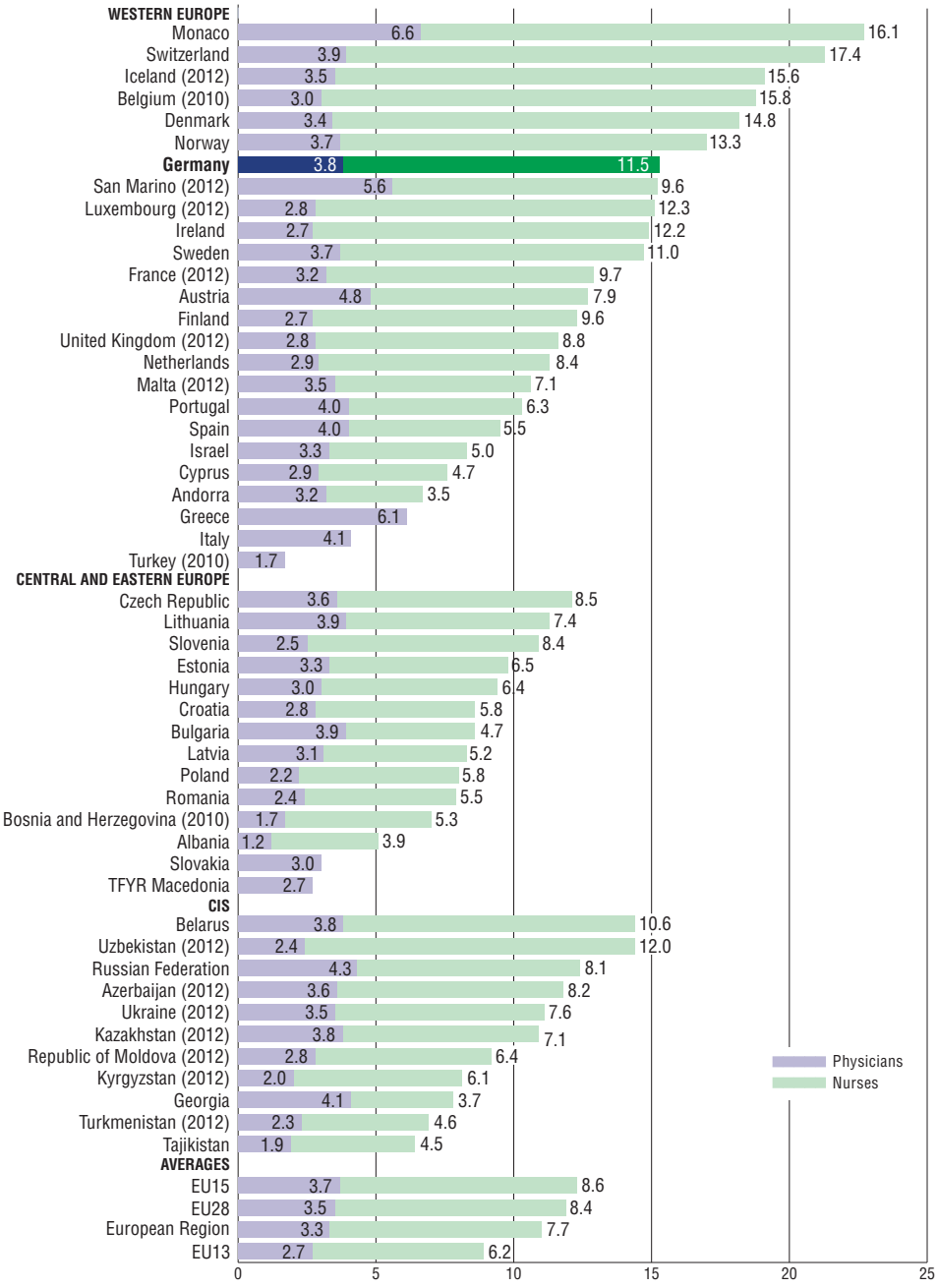


Source: WHO Regional Office for Europe, 2013.

Fig. 4.5 compares the number of physicians and nurses per 1000 inhabitants in the EU. It becomes clear that the numbers of physicians and nurses in the EU13 (with 2.7 physicians and 6.2 nurses per 1000 inhabitants) are far below the average for the EU15 (3.7 and 8.6). The Nordic countries Iceland, Denmark, and Norway have the largest number of physicians and nurses per 1000 inhabitants alongside Monaco (6.6 and 16.1, respectively) and Switzerland (3.9 and 17.4, respectively). Germany with 3.8 physicians and 11.5 nurses per 1000 inhabitants is ranked number seven in western Europe.

Fig. 4.5

Number of physicians and nurses per 1000 population in the WHO European Region, 2011 or latest available year



Source: WHO Regional Office for Europe, 2013.

4.2.2 Professional mobility of health workers

As a result of the EU enlargements in 2004 and 2007, growing migration of health professionals to Germany had been expected. In fact, the number of foreign health workers has grown constantly since 2000 and reached its peak in 2003, therefore before the enlargements. The extent of migration to Germany is relatively small compared with that to other destination countries in the EU. Microcensus data from the Federal Statistical Office show that in 2008 the share of foreign health professionals among all health professionals working in Germany was 6%. Of these foreign health professionals, about 15% were born in Germany and around 57% had been trained in Germany as well (Ognyanova & Busse, 2011).

In 2012, the Federal Chamber of Physicians registered 32 548 foreign doctors, that is a 14.8% increase over the previous year. Of these, 18 254 (56%) came from EU Member States, 5616 (17%) from other European countries, 1586 (5%) from Africa, 5886 (18%) from Asia, 337 (1%) from North America, 597 (2%) from Central and South America, and 27 (0.1%) from Australia (Bundesärztekammer, 2014). The majority of foreign doctors worked in hospital (69%), with only 11% working in ambulatory care. The reason for this imbalance might be the higher investment costs for practice-based physicians and the strict legal framework (Ognyanova & Busse, 2011). Reliable data on the number of German physicians working outside the country are hard to find. However, it can be assumed that the outflow of doctors has increased since 2000. Approximately 1% of all active medical doctors left Germany in 2008 to work abroad. The most popular destination countries were Switzerland, Austria, the United States, the United Kingdom and Sweden. Reasons for leaving Germany are poor working conditions and payment (Ognyanova & Busse, 2011).

Since nurses are less strongly organized than physicians in Germany, there is no institution monitoring the number of nurses and their professional qualifications. According to the Federal Employment Agency, a total of 24 387 foreign-national nurses and midwives subject to social contributions were registered in 2008. This is a decrease of 7.5% compared with the total number of foreign nurses in 2003 (26 364). Despite EU enlargement, this effect can also be observed when looking at EU Member States. The number of nurses and midwives coming from EU Member States to Germany decreased from 10 259 in 2003 to 9 971 in 2008 (2.8% decrease). In 2008, 11 013 nurses came from other European countries, 690 from Africa, 560 from America, 2103 from Asia and 50 from Australia (Ognyanova & Busse, 2011). Similar to the physicians, the data available on the outflow of nurses are very poor.

The German Nurses Association estimates that not more than 1000 German nurses leave the country each year (Zander, Blümel & Busse, 2013). An EU workforce study on professional mobility in the EU (PROmeTHEUS) found that reasons nurses gave for leaving Germany were high workloads in poor working conditions, limited decision-making powers, a lack of recognition, low remuneration, missing collaboration between nurses and physicians, and poor advanced training opportunities. Switzerland, Scandinavian countries, the Netherlands, Austria and the United Kingdom were identified as major destination countries (Ognyanova & Busse, 2011).

4.2.3 Training of health workers

The training of health care professionals is a shared responsibility of the federal government, *Länder* governments and professional associations. Most current debates arise out of the tension between the various stakeholders. According to the federal structure, the 16 *Länder* are generally responsible for regulating and financing education as well as for registering and supervising professions, including health professions. However, health professions have differed traditionally from other professions because of the national regulations for their primary education and the virtual autonomy of the bodies regulating their specializations (secondary professional education) and continuing education. National standards for curricula and examinations were introduced in 1871 for medical studies, in 1875 for faculties of pharmacy and in 1907 for nurse training. Currently, uniform curricular frameworks defined by federal law exist for 17 of 23 non-academic health care professions, for example nursing, paediatric nursing, assistant nursing, midwifery, physiotherapy, speech therapy, technical assistance or emergency and rescue care. National legislation was also introduced to harmonize the primary education of carers for the elderly in 2002.

Primary professional education and registration

Primary training of non-academic and academic professionals is basically free of charge in Germany. However, private schools with course-based training for therapeutic professions demand fees. Participants of practice-based training in health care institutions, such as nurses in training, receive a basic income. University education is financed by the *Land* and, in some cases (depending on the *Land*), also through tuition fees, while practice-based training at hospitals has basically been funded by sickness funds since 2000 as part of their financial contracts with individual hospitals. The responsibility for financing nursing schools used to be the state government's but was shifted largely to sickness funds in 2000. It is funded through an "apprenticeship surcharge".

Many German universities offer degrees in medicine, dentistry and/or pharmacy. There are also many publicly financed facilities for the primary training of nurses and child nurses, elderly carers, who are trained on the job with additional blocks or days for course-based learning. At the same time, schools for physiotherapists, masseurs, midwives, dieticians and speech and language therapists are often private and require fees (approximately €300 to €700 per month). Primary training of most non-academic health professionals requires an advanced degree after secondary school and usually takes three years.

Access to German universities is usually limited to people with 12 or 13 years of schooling (equivalent to A-levels in the United Kingdom). Academic health education is among the disciplines for which places are distributed centrally according to academic records, waiting times and special quotas (e.g. foreigners or the disabled) although 15% of medical students are accepted by means of interviews at universities. University studies last between four (pharmacy) and six (medicine) years.

The curricula of the university-based programmes in medicine, dentistry and pharmacy differ from other study programmes, organized around two to four centralized examinations as defined by federal law. In 1999, a clause was integrated into the federal ordinance for medical studies allowing individual medical faculties to offer curricula reform while preserving basic federal standards, such as two centralized final examinations. The first reformed medical curriculum started as a second track at Berlin Humboldt University in 1999 with 63 students. In autumn 2003, the ordinance was completely changed with the aim of facilitating profound innovations in favour of bedside teaching, community-based teaching, problem-solving skills and the integration of basic science and clinical subjects.

Since the beginning of the 1980s, cost considerations have motivated health policy-makers to try to reduce university places for health care studies. While educators have not generally agreed, the "detour" via improved lecturer–student ratios was chosen – politically promoted as an improvement of training quality. Since the early 1990s, the number of graduates in medicine, dentistry and pharmacy decreased accordingly, a situation which again led to concerns after the mid-2000s (Tables 4.5 and 4.6).

Table 4.6
Students and graduates in selected health care faculties, 1990 to 2009/10, selected years

	1992–3	1995–6	2000–1	2005–6	2006–7	2007–8	2008–9	2009–10
Students								
Medicine	93 198	84 958	80 200	79 847	80 499	78 545	79 379	79 730
Dentistry	15 136	14 152	13 218	13 335	13 581	13 494	13 763	13 581
Pharmacy	12 752	13 106	13 201	12 069	12 128	11 721	12 052	–
	1990	**1995**	**2000**	**2005**	**2006**	**2007**	**2008**	
Graduates								
Medicine	10 048	10 266	9 174	8 877	8 695	9 574	9 857	
Dentistry	2 131	1 892	1 585	1 504	1 539	1 533	1 780	
Pharmacy	2 013	1 622	1 842	1 889	1 810	1 725	1 883	

Source: Bundesministerium für Gesundheit, 2013a.

After graduation, health care professionals are eligible for registration at the *Länder* ministries responsible for health. A regulation that medical graduates receive full state recognition only after having worked in clinical practice for 18 months was abolished in 2004 (see section 3.6.2).

Reforms of training for elderly carers (2001) and for nurses (2003) modernized curricula and enhanced elements of preventive and psychosocial care and community-based practice. Despite initiatives to unify the nursing professions, the traditional profound dichotomy between them has been preserved by the recent reforms of primary professional training. The primary training for elderly carers was harmonized for the first time at the federal level in 2001. The traditionally strong emphasis on social work has been complemented by more training in nursing skills. However, experience in geriatric–psychiatric nursing has still not become an obligatory part of training for those caring for the elderly.

Physician assistants and dental assistants continue to be trained separately in a vocational type of training based at physicians' practices. Their training was recently broadened by introducing obligatory rotation and modernized to account for changes in patient information, practice management and information technologies.

Secondary professional training (specialization) and continued education
Specialization usually takes two or three years in non-academic health care professions and four to six years in academic professions. Medical and veterinary graduates are obliged to specialize if they want to work as SHI-accredited

physicians in private practice, while specialization is optional for the other health care professions. The different *Länder* in Germany recognize a maximum of 8 specialities in pharmacy, 3 in dentistry, 48 in veterinary medicine, 7 in psychology and 12 in nursing.

The number of medical specialities increased from 14 in 1924 to 37 in 2008, supplemented by another 52 subspecialties or additional qualifications. Based on decisions of an assembly of physician representatives from the assemblies of the regional associations of SHI physicians, the Federal Chamber of Physicians issues a model advanced training regime that is further detailed by the state-level chambers of physicians. For each of these qualifications, a minimum length of training as well as a catalogue of procedures and skills is detailed in the training regime. Subsequent to the advanced training period, physicians must pass an examination administered by specialists in the target qualification.

The duration of specialization in general medicine was increased from three to five years in 1997 in order to strengthen the quality and professional status of future family practitioners. However, GPs amounted to only about 20% of the physicians receiving their specialty diplomas from physicians' chambers during the 1990s. The low generalist to specialist ratio has been interpreted as reflecting lower income prospects (see section 3.6.2) but also a lack of training facilities in ambulatory care and lower prestige because of the social view of medical doctors in secondary and tertiary hospital care. Therefore, since 1999, sickness funds, private health insurers and regional associations of SHI physicians have been legally obliged to finance half of the GP trainees' salaries during the office-based training period (minimum two, maximum three of the total five years). However, in practice, the subsidy often is the trainee's only income, which may explain why, in 2008, of the 11 631 physicians obtaining a specialist degree, only 7.7% were GPs while specialist internists were the largest group (15.3%), followed by paediatricians (5.1%) (Bundesärztekammer, 2009).

A high dropout rate in non-academic professional training and practice has been interpreted as reflecting the employment situation for women, the relatively low job satisfaction in hierarchical systems and the limited prospects for professional development and social mobility. The shortage of nurses was another factor motivating the introduction of course-based specialization facilities at universities of applied sciences during the 1980s. In recent years, nursing sciences have also been offered by public and private universities. Part-time or full-time courses are increasingly offered for other nonmedical professions as well (e.g. physiotherapists, speech and language therapists or carers for the elderly). Polytechnics and private institutions also offer a

variety of courses in areas such as health promotion and hospital management. Since 2010, a new "Health University of Applied Sciences" (*Hochschule für Gesundheit*) has been offering undergraduate courses in occupational therapy, midwifery, speech and language therapy, nursing and physiotherapy.

Public health was an exclusively medical specialty until 1989, when postgraduate courses were gradually introduced at universities, predominantly in medical faculties. The two-year part-time courses are partly free of charge and partly require tuition fees. Quality management is another part-time qualification that has been introduced in recent years at five physicians' chambers, private institutions and some polytechnics.

Professional chambers of physicians, psychologists, dentists and pharmacists are responsible for regulating, promoting and supervising the continuing education of their members. Since 2004, continuing education has been made obligatory for all health care professionals active in ambulatory care for SHI-covered people. Evidence of appropriate professional development has to be presented every five years. In the case of SHI-affiliated physicians, lack of adequate evidence may lead to a reduction of reimbursement.

5. Provision of services

A key feature of the health care delivery system in Germany is the clear institutional separation between (1) public health services, (2) primary and secondary ambulatory care and (3) hospital care, which has traditionally been confined to inpatient care. The early sections are arranged accordingly. Separate sections discuss emergency care, pharmaceutical care, rehabilitative services, nursing and long-term care, palliative care, psychiatric care, dental care, complementary and alternative medicine, and services for people with physical and mental disabilities.

5.1 Public health

While the specific tasks of the public health services and the levels at which they are carried out differ from *Land* to *Land*, they generally include activities linked both to the *Land*'s sovereign rights and the care provided for selected groups, such as:

- surveillance of communicable diseases;
- health reporting;
- supervision of hygiene in hospitals and among hospital staff, and since 2000 of office-based physicians and non-physician health professionals;
- supervision of commercial activities involving food, pharmaceuticals and drugs;
- overseeing certain areas of environmental hygiene;
- physical examinations of schoolchildren and certain other groups;
- diagnostic and – in exceptional circumstances – therapeutic services for people with specific communicable diseases including sexually transmittable diseases and tuberculosis;

- provision of community-oriented psychiatric services;
- health education and promotion; and
- cooperation with and advice to other public agencies.

These services are provided by roughly 350 public health offices across Germany, which vary widely in size, structure and tasks.

In the first decades of the Federal Republic's history, the *Länder* defended their responsibility for public health services against several attempts by the federal government to extend its influence in this sector. Originally, immunizations, mass screening for tuberculosis and other diseases, as well as health education and counselling, were in the hands of the public health services. Since the 1970s, however, many of these individual preventive services have been transferred to physicians in private practice, combined with an expansion of the SHI benefits package. Before 1970, only antenatal care was included in the benefits package. Since 1971, however, screening for cancer has become a benefit for women over 20 years and men over 45 years. At the same time, regular check-ups for children under 4 years of age were introduced (and extended to children under 6 years of age in 1989 and to adolescents in 1997). Also in 1989, group dental preventive care for children under 12 years and individual dental preventive care for those aged 12–20 years became SHI benefits; individual preventive care was extended to those aged 6–20 years in 1993. Regular health check-ups, such as screening for cardiovascular and renal diseases and diabetes, for sickness fund members over 35 years were also introduced in 1989.

Primary prevention and health promotion were made mandatory for sickness funds in 1989, eliminated in 1996 and reintroduced in modified form in 2000. With §§ 20 and 20a SGB V, the Act to Strengthen Competition in SHI expanded the scope of the sickness funds' activities yet further to include occupational health promotion as a standard SHI benefit as of 2007. The sickness funds are given a benchmark of €2.78 per insured individual for primary prevention measures and occupational health promotion. In 2010, the sickness funds spent approximately €300 million on primary prevention and occupational health promotion. Between 2000 and 2010, spending on primary prevention increased from €1.10 to €4.33 per person covered by SHI. In 2010, around 12 million people – many more than in the previous year – received preventive and health promoting activities from their sickness funds. In particular, setting-based measures were expanded: In 2010, more than 30 000 institutions (up from 14 000 in 2007) – especially kindergardens, schools and vocational schools

– were supported by targeted activities in the areas of exercise and healthy eating, thereby reaching 9 million people. Individual courses have also been increased; utilization of these increased steadily between 2002 and 2009, with a slight decrease in 2010. With 52%, exercise courses have remained most popular (Medizinischer Dienst des Spitzenverbandes Bund der Krankenkassen, 2012).

Since 2003, the existing cancer-screening benefits covered by SHI (women: cervix/genital, breast, skin, rectum/colon; men: skin, rectum/colon, prostate) have been extended to include colonoscopy (two tests, at the ages of 55 and 65 years) as an alternative to stool testing and a systematic mammography screening programme for women aged 50 to 69 years.

The expansion of the SHI benefits package to include screening and early detection services means that private-practice physicians are obliged to deliver these services as part of the regional budgets negotiated by the regional associations of SHI physicians and the sickness funds. For some other services, such as immunizations, the physicians negotiate with the sickness funds and arrange separate fees that are not part of the regional budgets. Consequently, preventive services are now delivered within the same legal framework as curative services, meaning their exact definition is subject to negotiations at the federal level between the sickness funds and the physicians. The current directive of the Federal Joint Committee on preventive services includes clinical and laboratory services for screening and information about test results and prognosis; health education, however, is still given low priority in the reimbursement and documentation requirements.

Since 2000, the functions of public health services in controlling communicable diseases have been reorganized according to the Infection Protection Act (*Infektionsschutzgesetz*). The surveillance procedures were streamlined and essentially centralized at the Robert Koch Institute to better evaluate and inform the public about infectious diseases and to cooperate with European disease-control agencies. Besides supervising hygienic standards in hospitals, public health offices also check hygienic standards in practices of ambulatory care physicians, dentists and other health professionals. Hospitals and ambulatory surgery facilities are now required to report nosocomial infections and multiresistant microbes, with recommendations for improving the situation.

Since the introduction of the Infection Protection Act in 2000, well-proved voluntary and educational standards for HIV have been applied to all sexually transmittable diseases, and the former stricter regulations have been abolished.

Public health offices have been required to strengthen their counselling services and to provide diagnostic services and treatment in certain cases, including for example non-compliant patients with tuberculosis.

The Federal Centre for Health Education, an agency of the Federal Ministry of Health, is responsible for population-wide campaigns for lifestyle-oriented primary prevention of chronic diseases, including initiatives to prevent HIV; sex education and family planning; and initiatives to prevent addiction, increase exercise, improve nutrition and help people to cope better with stress. It also operates campaigns to encourage organ and tissue donation. The Centre also operates a database on projects that aim at reducing inequalities in health by particularly targeting the socially disadvantaged. Currently, the database provides information on more than 1700 projects directed at improving the health of socially disadvantaged people or groups.

5.2 Patient pathways

A typical clinical pathway within the German health care system for a female patient with chronic diseases can be described in the following example.

A woman, 54 years of age, suffers from type II diabetes and chronic obstructive pulmonary disease (COPD); she also has a leg ulcer and moderate retinopathy. She is slightly overweight (body mass index 27). She has been unemployed for three years and receives social assistance benefits; she lives on her own.

In Germany, she would almost always be insured under the SHI scheme. She can, therefore, select any family physician or register voluntarily with a family physician who is enrolled in the "family physician care model" of her sickness fund. In either case, she should then be offered participation in the DMPs (see section 5.3) for type II diabetes and COPD. This is conditional on such DMPs being offered by the sickness fund with which the patient is insured for the region where the patient lives – and that her family physician participates in the DMPs. It is estimated that between 60 and 75% of family physicians do so. If the patient's family physician does not participate in the DMPs but she wishes to take part, she has the option of changing to another physician.

The patient will receive two information brochures after initial registration on the DMPs: one for the DMP Diabetes and one for the DMP Asthma/COPD. The sickness fund can additionally grant special benefits to a patient for participation in DMPs. The patient may not have to pay the practice fee, or the co-payments for drugs could be reduced.

Treatment in the DMP starts with the patient being given a thorough explanation of the programme. On the basis of an assessment of the patient's individual risk, the physician and the patient jointly draw up therapy goals – for glycated haemoglobin (HbA1c) and blood pressure, for example. An individual therapy plan is thus drawn up for diabetes and COPD. In addition, the family physician should offer the patient the opportunity to take part in patient education courses.

Physicians who take part in the DMPs undertake to treat their patients according to their contract with the respective sickness fund. This is of particular relevance to the drugs prescribed for the patient. The guidelines stipulate active substances or groups of active substances that should be given priority in the treatment of the specific condition, in this case type II diabetes or COPD. Deviations from the defined procedure have to be explained to the patient.

The coordination of care is carried out by the patient's family physician. In this case, because of the patient's retinopathy, the family physician refers her to an eye specialist (office based, contracted by the sickness funds) for an examination. An annual ophthalmological examination in order to exclude eye complications is also a fixed part of the DMP Diabetes. Because of her leg ulcer, she is also referred to a "foot" clinic (which can also be an office-based medical treatment centre or in a hospital) to investigate possible consequential damage to her legs and feet.

A referral to a qualified diabetes specialist can take place when, for example, a target blood pressure value of below 140/90 mm Hg or an individually agreed HbA1c value is not achieved, or when a change of treatment from oral antidiabetic drugs to insulin becomes necessary.

The DMP Asthma/COPD stipulates a referral to a qualified specialist when the results of treatment are unsatisfactory in spite of intensified therapy, when long-term treatment with oral steroids is required or when there are secondary disorders. After treatment by the specialist, the patient returns to the care of her family physician.

A referral to a hospital, which should also be a participant in the DMPs (but does not necessarily have to be), should be considered in the following situations (among others):

- in dangerous metabolic disorder, severe metabolic crisis or when an infected diabetic foot is suspected (DMP Diabetes); and

- if a life-threatening exacerbation is suspected or if there is a significant persisting or progressive deterioration of the COPD in spite of initial treatment (DMP Asthma/COPD).

The actual referral note can be issued by either the family physician or a specialist (involved or not involved in the DMP).

The physician arranges regular appointments for examinations with the patient. On a quarterly or half-yearly basis, at registration and at the appointments for examination, one document each is drawn up for the DMP Diabetes and the DMP Asthma/COPD. The documentation data are centrally recorded and processed by the contract parties of the DMP. On the basis of these data:

- the coordinating physician receives reminders about the upcoming appointments of the patient;
- the coordinating physician receives a feedback report containing information both on patients who are being treated in her/his practice and on all patients treated within the framework of the DMP;
- the relevant sickness fund reminds the patient about upcoming appointments; and
- a quality report for all DMPs in a region is drawn up.

The only entry requirement for patients is their active participation and meeting a minimum degree of illness. This is measured by the regular receipt of documentation. If documentation is missing on two occasions within three years, or the patient does not take part in recommended courses, her sickness fund will cancel her registration on the DMP.

The particular social situation of the patient (unemployment) is not specifically referred to in the guidelines for DMPs. However, her social situation is taken into consideration via the individual risk assessment required in the DMP and through the joint coordination of therapy goals. In addition, the coordinating physician always has the option of taking the measures for the care of the patient that are applied in normal health care provision.

The German health care system has traditionally no gate-keeping system; instead patients are free to select an SHI-accredited physician of their choice. According to SGB V § 76, sickness fund members select a family physician who cannot be changed during the quarter relevant for reimbursement of services for that patient. Since there is no mechanism to control or reinforce this

"self-selected" gate-keeping, patients frequently choose office-based specialists directly. The introduction in 2004 of a co-payment for physician visits (until the end of 2012) changed patients' behaviour in so far as they were then usually (formally) referred. Subsequent visits to this physician during the same quarter did not require a co-payment. The physician, who could be a family physician or a specialist, subsequently referred (and still refers) the patient to other physicians, as necessary.

5.3 Ambulatory care

Ambulatory health care is mainly provided by private for-profit providers, including physicians, dentists, pharmacists, physiotherapists, speech and language therapists, occupational therapists, podologists and technical professions (see section 4.2). Acute care and long-term care are commonly provided by non-profit or for-profit providers employing nurses, assistant nurses, carers for the elderly, social workers and administrative staff (see section 5.8).

Patients have free choice of physicians, psychotherapists (since 1999), dentists, pharmacists and emergency room services. Although patients covered by SHI may also choose other health professionals, access to reimbursed care is available only upon referral by a physician. About half of all SHI-affiliated physicians work in primary care (Table 5.1). Family practitioners are not gate-keepers in Germany, although their coordinating competencies have been strengthened in recent years.

According to data from the Federal Association of SHI Physicians for 2012, 141 038 of the 348 695 active physicians worked in ambulatory care. Of these, a minority (5641 (4%)) practised solely for private patients, while 121 189 worked as SHI-accredited physicians and a further 9 193 as salaried physicians (Table 5.1). The practice premises, equipment and personnel are financed by the physicians. Depreciation of investments is sought through reimbursement from sickness funds, private health insurers and, to a small but increasing degree, by patients directly (see section 3.6.2).

Solo practices are also the dominant form of ambulatory physician care in eastern regions, where during the period of the former German Democratic Republic, until 1989, public polyclinics were the dominant deliverers of ambulatory services, in conjunction with local community dispensaries and company-based health care services. As part of the institutional transfer of the

Table 5.1

Specialties and functions of physicians providing ambulatory care in SHI, 1990–2012[a]

	SHI-affiliated physicians in private practice				Hospital physicians with a right to treat SHI patients on an ambulatory basis in 2012
	1990	Change 1990–2012 (%)	2012	Of these, with a right to treat inpatients in 2012	
Anaesthetists	508	467	2 880	23	717
Ophthalmologists	4 092	24	5 061	579	137
Surgeons	2 539	61	4 080	585	1 804
Gynaecologists	7 306	35	9 829	959	1 021
ENT physicians	2 967	32	3 905	1 483	213
Dermatologists	2 535	27	3 225	21	132
Internists	12 720	59	8 182 (specialists), 11 994 (family)	323 (specialists), 32 (family)	2 389
Paediatricians	5 128	12	5 759	23	827
Laboratory specialists	419	141	1 011	0	51
Neurologists/psychiatrists	3 228	50	4 838	11	550
Orthopaedists	3 460	57	5 417	687	472
Psychotherapists[b]	842	539	5 386	3	109
Radiologists	1 439	130	3 306	33	722
Urologists	1 744	54%	2 679	534	250
All physicians with a specialist degree (including other specialists)	**50 567**	**64**	**82 887**	**–**	**–**
General practitioners and others[e]	38 244	0.2	32 462 (GPs), 5 840 (other)	30 (GPs), 6 (other)	41 (GPs), 101 (other)
Total (family physicians + specialist physicians)	**88 811**	**36**	**121 189**	**5 781**	**9 899**
Specialist physicians[c]	**–**	**–**	***65 273***	**–**	**–**
Family physicians[d]	**–**	**–**	***55 916***	**–**	**–**

Sources: Kassenärztliche Bundesvereinigung, 1999, 2014.
Notes: [a]Besides SHI-affiliated and authorized physicians, there was a total of 1 001 partner-physicians and 9 193 salaried physicians who worked in ambulatory care in 2012 and who are not considered in this table; [b]Only medically qualified psychotherapists; [c]All specialists excluding family internists and paediatricians; [d]Includes general practice (physicians holding a specialist qualification in general practice), practitioners (physicians without any specialist qualification practising family medicine), family internists (specialists in internal medicine) and paediatricians; [e]Includes GPs and physicians without any specialist qualification practising family medicine.

old West German health care system into the new *Länder* in the eastern part, these forms of care were quickly given up in favour of entrepreneurial solo practices after reunification. Only a few polyclinics continued to exist in the eastern part after reunification, initially on an exemption basis (see section 2.2).

Interdisciplinary care was reintroduced from 2004 at medical treatment centres, which may be owned by companies, non-profit organizations or independent professionals but have to be headed by a physician and comply

with regulations as members of the regional associations of SHI physicians. The number of such treatment centres increased between 2004 and 2012 from 70 to 1814. Whereas 241 SHI-accredited physicians worked in the centres in 2004, the number had increased to 10 020 by 2012. Since 2005, the number of salaried physicians at the centres has increased more rapidly than the number of SHI-accredited physicians working there on a self-employed basis. While in 2005 the ratio of salaried physicians to SHI-accredited physicians was roughly even, it was 2:1 in 2007 and 4:1 in 2012 (Kassenärztliche Bundesvereinigung, 2014).

Ambulatory physicians offer almost all specialities; the most frequent ones are listed in Table 5.1 together with their development between 1990, the year in which needs-based planning of physician density was introduced, and 2012. During this same period, the total share of SHI-accredited physicians increased by 36%. However, the strength of this trend varied according to specialty: whereas the share of physicians qualified in general practice or working as practitioners increased by 0.2%, the share of all specialists increased by 64%.

Despite efforts by the federal government to improve the status of family practice in the ambulatory care sector, the number of specialists has increased more rapidly than that of family physicians since the 1990s and family physicians fell to less than 31% of all private-practice physicians in 2002. However, since qualified internists and paediatricians practising as SHI-accredited physicians had to decide whether to work as family physicians (*Hausärzte*) or as specialists (*Fachärzte*) (§ 73 SGB V), the ratio of specialist physicians to SHI-accredited family physicians has increased in recent years. This also applies to internists or paediatricians starting a new practice. Family physicians and specialists have differing reimbursable service profiles, differing reimbursement pools and, since 2005, separate representation on the assemblies of delegates and the executive boards of the regional associations of SHI physicians (see section 3.6.2). Since 2005, political representation in assemblies and many boards of the regional associations of SHI physicians is determined separately according to the share of family physicians and specialists.

Table 5.1 shows that, in 2012, of the 121 189 practising SHI-accredited physicians in Germany, 55 916 (46%) were practising as family physicians and 65 273 (54%) as specialists. Of the physicians practising as family physicians:

- 32 462 were qualified in general practice (physicians holding a specialist qualification in general practice);
- 5840 worked as practitioners (physicians without any specialist qualification practising family medicine);

- 11 994 were family internists (specialists in internal medicine); and
- the remainder were paediatricians.

The data do not provide any information on the number of paediatricians working as family physicians. Data from previous years, however, indicated that more than 90% of all SHI-accredited paediatricians (5730) were doing so (Busse & Riesberg, 2004). The share of all SHI-accredited internists working as family physicians was 60%. While GPs and practitioners accounted for only 36% of all SHI-accredited physicians in 2012, the total percentage of family physicians was 46% because of the inclusion of family internists and paediatricians. This percentage is expected to decrease as family physicians are on average older (i.e. more of them will leave the profession in coming years) while younger physicians are most often specialists.

Table 5.1 also provides information on two aspects linking the ambulatory and the hospital sector. First, around 4.8% of all office-based physicians have the right to treat patients inside the hospital. This is mainly the case for small surgical specialties in areas where the hospital has so few patients with this need that a physician operating once or twice a week is sufficient. All other physicians transfer their patients to hospital physicians for inpatient treatment and receive them back after discharge (e.g. postsurgical care is usually done by office-based physicians). Second, in 2012, in addition to the office-based physicians, around 9899 hospital physicians were accredited to treat ambulatory SHI-covered patients. These accredited physicians are mainly heads of hospital departments who are allowed to offer certain services or to treat patients during particular times (when practices are closed). On average, more than one internist and nearly one surgeon per general hospital had an ambulatory accreditation (Kassenärztliche Bundesvereinigung, 2014).

From 1993, sickness funds were allowed to initiate pilot projects for gate-keeping systems and to offer those they insured a bonus. However, few pilot projects were introduced and sustained because of various legal barriers, resistance of the regional associations of SHI physicians and extra costs in the gate-keeping pilots. Since 2004, sickness funds are obliged to offer the option to enrol in a "family physician care model", potentially with a bonus for complying with the gate-keeping rules. The first nationwide "family physician care model" contract was established by the AOK Baden-Wurttemberg, the German Association of Family Physicians and MEDI Baden-Wurttemberg, a parallel organization to the Regional Association of SHI Physicians of Baden-Wurttemberg. All 3700 family physicians in the state take part, and all regional

fund-insured people above the age of 18 may take part. By spring 2011, around 1 million patients were enrolled. The enrolled patients paid 50% of the normal co-payment for physician visits (until they were generally abolished at the end of 2012) and could expect shorter waiting times to see their doctor and support in arranging appointments with specialists. The enrolled insured members can make use of evening office hours, expect shorter waiting times at their GP and are exempt from co-payments on some pharmaceuticals.

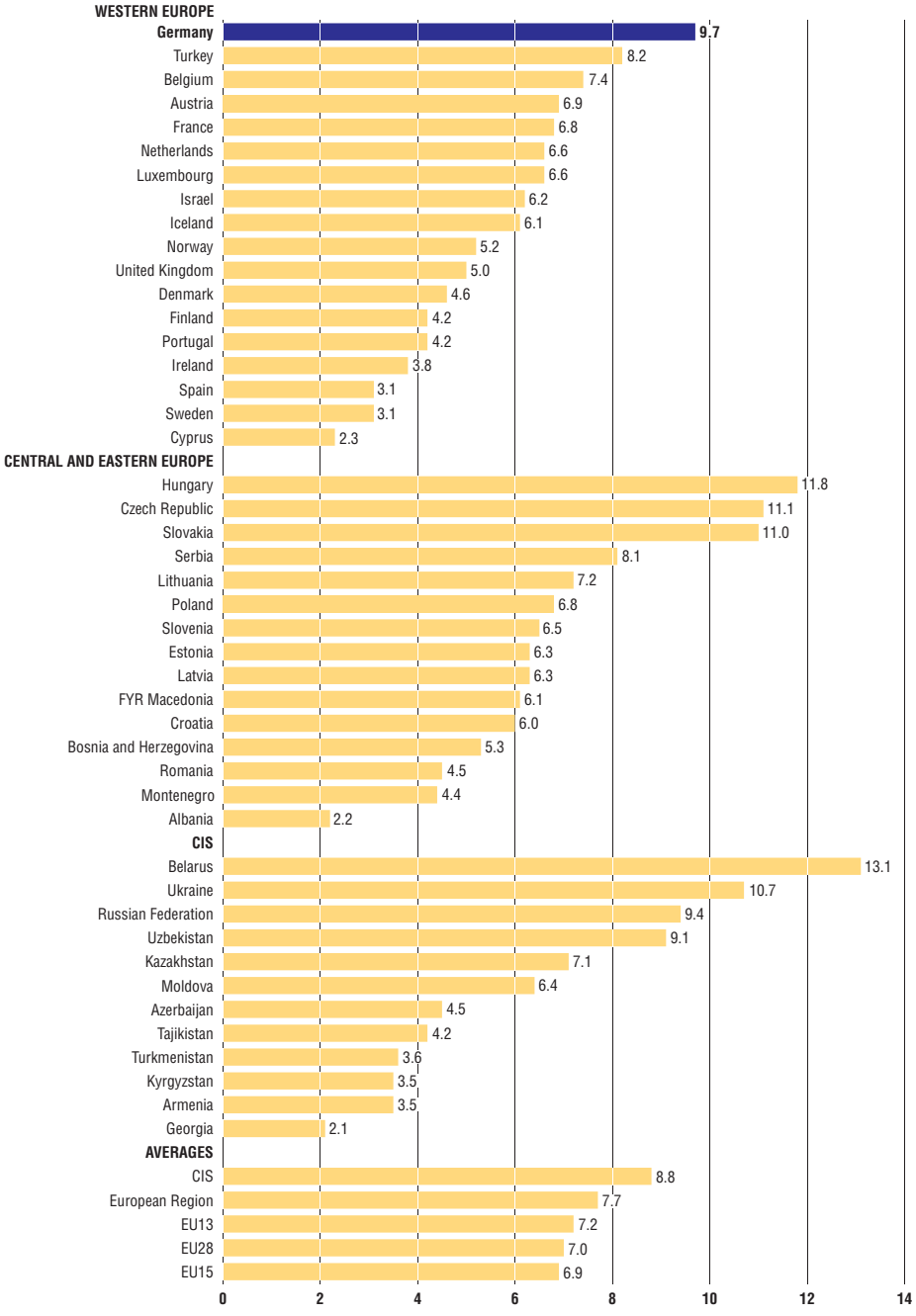
In January 2007, about 24.6 million SHI-covered people had the option (through statutes of their fund) to subscribe to a family physician care model and about 4.6 million had actually subscribed. About 1.8 million insured took part in the nationwide model of the *Barmer Ersatzkasse* (a substitute sickness fund), which allows for exemptions from co-payments for prescriptions if prescribed by their family physician.

The number of visits to ambulatory physicians has increased according to various surveys: between 1999 and 2002, the average rate of visits to private-practice physicians was reported to be 9.5–11.5 per year (Andersen & Schwarze, 2003). A survey of the *Gmünder* substitute fund identified as many as 16.3 visits in ambulant care per SHI-covered person in 2004 (Gmünder Ersatzkasse, 2006) and calculations from the Central Institute for SHI Physician Care (*Zentral-Institut für die kassenärztliche Versorgung*) even resulted in 17.1 visits per SHI-covered person for 2007 (Riens, Erhart & Mangiapane, 2012). Judging from this information, the WHO data presented in Fig. 5.1 may rather underestimate actual outpatient utilization in Germany. This may reflect the definition of a "case" (i.e. a treatment case is registered only once per quarter) where a patient may contact the doctor several times per quarter and yet be a single treatment case.

According to an international comparison based on data from the Commonwealth Fund, family physicians in Germany work on average 50.8 hours per week. With 250 patient contacts during the same time, their workload is twice as high as in other European countries (except Italy), the United States, Canada, Australia and New Zealand. According to the same survey, family physicians in Germany spent 70% of the weekly work time in contact with patients– resulting in a median time per patient contact of 9.1 minutes in Germany, followed by Italy with 10.3 minutes. This value is low compared with the remaining countries where the time per patient contact had a median ranging from 13.3 (United Kingdom) to 28.8 (Sweden) minutes (Koch et al., 2011).

Fig. 5.1

Outpatient contacts per person in the WHO European Region, 2011 or latest available year



Source: WHO Regional Office for Europe, 2013.

DMPs

An aspect with relevance for the coordination of services provided by family physicians and specialists was the introduction of structured treatment programmes, so-called DMPs in 2003. These were intended to organize the treatment and care of chronically ill patients across the boundaries of the individual service providers, thus providing care more in line with requirements and in a more efficient manner. Health care services for patients registered with one or several DMPs are provided using evidence-based guidelines and across the boundaries of the individual service providers. In contrast to integrated care (see section 5.4.3), which is aimed at cross-sector patient care, DMPs primarily aim at coordinating services at the ambulatory care level.

In February 2003, the Federal Insurance Authority accredited the first DMP, for breast cancer, in North Rhine. DMPs are based on a uniform contract between all sickness funds of a region and the regional association of SHI physicians as well as a number of hospitals. Measures for quality assurance include standardized documentation, feedback reports to physicians, patient information and reminder systems (Busse, 2004). By December 2012, 10 385 DMPs had been accredited by the Federal Insurance Authority, with a total of 7.164 million enrolled (partly in more than one programme, so that the total number was only 6.228 million) (Bundesversicherungsamt, 2013). Table 5.2 shows the development of the number of accredited DMPs as well as participants since 2006. The decrease in the number of programmes since 2007 can be explained by the decreasing number of sickness funds as mergers and takeovers have also led to merged DMPs. The number of participants is, however, still increasing.

Up until the introduction of the Central Reallocation Pool and the associated morbidity-based risk structure compensation in 2009 (see section 3.3.3), DMPs were integrated into the risk structure compensation, which created an important incentive for the sickness funds to introduce structured treatment programmes. Insured individuals registered with one of the programmes were a separate group within the morbidity-based risk-adjustment scheme, which for them resulted in higher standardized health care expenditure in almost all age groups. Furthermore, the regulation did not lead to any additional costs for the health care system, but merely to a distribution in accordance with the associated risks for financial resources between the requirements for the group of average insured individuals and the requirements of the chronically ill, because the higher values for the DMP participants were compensated for by the reduction of the compensation rate for the group of “normal” insured individuals.

Table 5.2
DMPs and participating insurants, 2006–2012

Indication	2006	2007	2008	2009	2010	2011	2012
Type I diabetes							
No. programmes	1 168	2 384	2 425	2 041	1 696	1 657	1 645
No. participating insurants	29 000	82 000	115 247	127 663	137 000	146 919	155 670
Type II diabetes							
No. programmes	3 266	3 341	2 353	2 332	1 945	1 832	1 838
No. participating insurants	1 948 000	2 563 000	2 923 248	3 242 066	3 414 000	3 600 092	3 749 045
Breast cancer							
No. programmes	2 660	2 966	2 352	2 031	1 748	1 705	1 708
No. participating insurants	67 000	93 000	117 541	128 388	128 000	128 927	126 260
Ischaemic heart disease							
No. programmes	2 947	3 072	2 504	2 244	1 899	1 784	1 765
No. participating insurants	635 000	1 116 000	1 403 526	1 562 970	1 618 000	1 670 448	1 700 727
Asthma							
No. programmes	182	2 741	2 584	2 326	1 965	1 817	1 715
No. participating insurants	6 000	228 000	542 614	646 485	715 000	765 828	798 751
Chronic obstructive pulmonary disease							
No. programmes	330	2 722	2 591	2 339	1 974	1 823	1 714
No. participating insurants	8 000	197 000	413 201	506 566	563 000	604 051	633 331
Total programmes	**10 580**	**17 226**	**14 810**	**13 313**	**11 227**	**10 618**	**10 385**
Total participating insurants	**2 693 000**	**4 279 000**	**5 515 477**	**6 214 138**	**6 547 000**	**6 916 265**	**7 163 779**

Source: Bundesversicherungsamt, 2013.

In 2009, this financial incentive for the sickness funds to introduce DMPs was abolished, as all indications of the existing DMPs are among the 80 diseases eligible to be taken into consideration under the morbidity-based risk-adjustment scheme (see section 3.3.3). However, for the continued support of DMPs, the sickness funds receive a lump sum for each DMP participant in order to cover the programme costs. In 2009 and 2010, this sum amounted to €180, and was reduced to €145.68 for 2014.

5.4 Hospital care

German hospitals have traditionally concentrated on inpatient care; sectoral borders to ambulatory care were strict. Only university hospitals (§ 117 SGB V) had formal outpatient facilities although some heads of departments had a right to treat patients on an ambulatory basis in other hospitals (§ 116 SGB V). Day surgery and ambulatory care before and after hospital inpatient care have

become other fields of increasing activity. Also, participation in integrated care models (since 2000) and DMPs (since 2002) offers new opportunities to become active in ambulatory care. Since 2004, hospitals may provide ambulatory care services to certain groups of people with highly specialized treatment needs.

5.4.1 Inpatient care

Planning and regulation of treatment facilities for inpatients are done by ministries of health (ministries of science for university hospitals) at the *Länder* level, but based on the federal legal framework of the Hospital Financing Act (see sections 2.5.2 and 3.6.1). This applies to highly specialized "tertiary" care (e.g. neurosurgery) as well as regular secondary inpatient care. Planning units are institutions, departments and, in certain *Länder*, beds. Contents and methods of the hospital requirement plans differ substantially among the *Länder*. Regulation of capacities is planned according to the principles of need (for specific departments) and performance, but criteria differ substantially. In recent years, several administrations have sought counselling from research institutes for defining need and interpreting performance. Several *Länder* define capacities as sufficient if the departments available for one speciality in a given municipality or county had an occupancy rate of 80%. Sickness funds and providers have a say at hospital committees at the *Länder* level, but in the end decisions are taken at the politico-administrative level. In addition, funds have the right to collectively decontract a hospital under certain conditions, but in practice this right is rarely used.

Table 5.3 shows inpatient structure and utilization data for hospitals in Germany between 1991 and 2012. During this period, the per capita number of general and psychiatric hospital admissions rose by 25%, to 22.8 per 100 inhabitants. During the same period, the total number of beds decreased by 26%, from 832 to 615 beds per 100 000 inhabitants in 2010 and increased slightly again to 624 beds per 100 000 inhabitants in 2012 (see section 4.1.2). Although the number of admissions increased and the number of beds decreased, occupancy rates decreased from 84.1% in 1991 to 77.4% in 2012. This resulted from the relatively strong decrease in the average length of stay, from 14.0 to 7.6 days.

Table 5.3
Inpatient structure and utilization data: hospitals in Germany, 1991–2012

	Beds per 100 000 inhabitants	Cases per 100 000 inhabitants	Length of stay (days)	Bed occupancy rate (%)
1991	832	18 224	14.0	84.1
1992	803	18 581	13.2	83.9
1993	774	18 713	12.5	83.1
1994	759	19 034	11.9	82.5
1995	746	19 509	11.4	82.1
1996	725	19 739	10.8	80.6
1997	707	20 023	10.4	81.1
1998	697	20 538	10.1	82.3
1999	689	20 823	9.9	82.2
2000	681	21 004	9.7	81.9
2001	671	21 041	9.4	81.1
2002	664	21 135	9.2	80.1
2003	657	20 960	8.9	77.6
2004	644	20 365	8.7	75.5
2005	635	20 056	8.7	74.9
2006	620	20 437	8.5	76.3
2007	616	20 883	8.3	77.2
2008	613	21 334	8.1	77.4
2009	615	21 762	8.0	77.5
2010	615	22 057	7.9	77.4
2011	626	22 870	7.7	77.3
2012	624	22 775	7.6	77.4

Source: Statistisches Bundesamt, 2013c.

5.4.2 Hospital outpatient and day care

Since the early 2000s, the scope for the provision of outpatient services by hospitals has been significantly expanded. Since 2004, hospitals may also provide care in specialities for which underprovision of care is stated by law (§ 116a SGB V) (e.g. pneumology and rheumatology), as recommended in the Advisory Council's report on over-, under- and misuse in health care (Sachverständigenrat für die Konzertierte Aktion im Gesundheitswesen, 2002). Furthermore, ambulatory care for patients with certain rare diseases and special forms of disease progression, as well as highly specialized services, has been declared areas of hospital activity by the SHI Modernization Act. In such cases, sickness funds may conclude special contracts with hospitals (§ 116b SGB V). The Act to Strengthen Competition in SHI has expanded this provision since 2007, allowing hospitals to deliver outpatient care services pursuant to § 116b SGB V without prior authorization from the sickness funds in so far as

the prerequisites for delivering these services are present and an application has been approved by the specific *Länder* government. Of the diseases enumerated in the Act, the Federal Joint Committee has selected the following to date: oncological diseases, mucoviscidosis, pulmonary hypertension, haemophilia, tuberculosis, multiple sclerosis, severe heart failure, HIV/AIDS, rheumatism, primary sclerotic cholangitis, Wilson disease and Marfan syndrome. In addition the Committee has listed criteria according to which new diseases are to be selected for hospital-based outpatient care. The list of disease conditions will be reviewed every two years. There is great interest on the part of hospitals to provide this type of care. By 2009, 5.6% of hospitals with an appropriate spectrum of services had filed an application with the responsible *Land* government to be able to offer specific kinds of ambulatory care. Among hospitals with fewer than 300 beds, the rate was only 1%, while in hospitals with more than 600 beds, it was 28%. The median of cases was 1700 in 2009, albeit with large variation. The average amount received was €391 (i.e. considerably less than for inpatient care; Deutsche Krankenhaus Gesellschaft, 2014).

The share of hospitals offering care before and after an inpatient stay (§ 115a SGB V) has increased steadily. Between 2003 and 2012, the number of cases of pre-inpatient care increased from 1.42 million to 4.1 million. During the same period, the number of cases of post-inpatient care increased from 0.75 million to 1.0 million (Statistisches Bundesamt, 2013c).

While hospitals have been allowed to offer surgery on an ambulatory or day-case basis only since 1993 (§ 115b SGB V), day-case surgery is not new in Germany. Because of the separation of the hospital and the ambulatory care sectors, surgeons, ophthalmologists, orthopaedic surgeons and other office-based specialists have performed minor surgery for a long time. Since the 1980s, this has been supported through the introduction of new items in the Uniform Value Scale, both to cover the additional costs of the operating physician (e.g. equipment, supporting staff) and to cover necessary anaesthesia. In 1991, day surgery accounted for almost 2% of sickness funds' expenditure in the ambulatory care sector. In 1993, additional items for postoperative care were introduced. The frequency of these items may be used to estimate the extent to which ambulatory surgery is taking place in Germany, although they do not allow a distinction between hospital-based and office-based day surgery since remuneration provided under the same norms as in the ambulatory care sector (Busse & Riesberg, 2004).

Since 2004 the number of ambulatory surgeries has increased. The German Hospital Federation, the Federal Association of SHI Physicians and the Federal Association of Sickness Funds negotiate regularly the catalogue of ambulatory surgical interventions for which ambulatory surgery is either obligatory or possible. The 2009 version contained considerably more than 2000 procedures. In 2004, there was an increase of 60% in the number of patients treated compared with the previous year, followed by an increase in 2005 of 16% and an increase in subsequent years of some 9% (Deutsche Krankenhaus Gesellschaft, 2014).

On average, general hospitals with at least 50 beds provide 1400 ambulatory surgeries; compared with inpatient care this translates to 11%. The average reimbursement amounted to €343 (Deutsche Krankenhaus Gesellschaft, 2014).

Since 2006, the quality of ambulatory surgery in hospitals as well as in physicians' practices is evaluated in benchmarking projects on a regular basis and combined with feedback for all practices and hospitals offering ambulatory care. By the end of 2009, the BQS was responsible for coordination (see section 2.8.2).

5.4.3 Integrated care

The sectoral nature of delivery, financing and decision-making structures of German health care has increasingly been perceived as a barrier to change. Since 1993, the legal framework allowed for intersectoral pilot projects (§§ 63–65, SGB V), thus giving sickness funds and providers an opportunity to test new integrated models of care. Although these regulations were expanded in each following health care reform, they did not result in viable concepts or measures.

New provisions for so-called integrated care were, therefore, introduced as part of the SHI Reform Act of 2000. The aim of these provisions was to improve cooperation between ambulatory physicians and hospitals on the basis of contracts between sickness funds and individual providers or groups of providers belonging to different sectors. Because of legal and financial barriers, only a few initiatives were established on the basis of these legal provisions. The Act to Reform the Risk Structure Compensation Scheme in SHI (*Gesetz zur Reform des Risikostrukturausgleichs in der GKV*) provided new incentives for intersectoral care in the context of DMPs from 2002 (see sections 3.3.3 and 5.3).

With the SHI Modernization Act, in force from 2004, integrated care has been further strengthened and the rules of accountability have been clarified. The Act removed barriers to starting integrated care models that had been enacted when integrated care was first introduced in 2000: Integrated care contracts do not need to extend across sectors now but have to involve at least different categories of providers within a sector, for example family physicians and long-term care providers. Integrated care contracts do not require the approval of the regional associations of SHI physicians. Other sickness funds or providers may only join the integrated care models if all contract partners agree – in contrast to the original agreement from October 2000, which had foreseen that any sickness funds could join after two years, a clause which was considered to impede innovation in a competitive surrounding.

In order to finance integrated care, sickness funds had a clear right (between 2004 and 2008) to deduct 1% of the resources for ambulatory physicians and hospital care once integrated care contracts had been concluded. These resources were only to be used for integrated care purposes in the respective region of the physicians' association and had to be paid back if not fully used. In addition, prescription volumes for pharmaceuticals and medical aids had – and have – to be adapted, taking the morbidity of the insurants in the integrated care contracts into account.

In a sense, integrated care contracts, therefore, constitute a new sector with new regulations and financial resources. In order for integrated care contracts to be initiated, sickness funds are required to negotiate selective contracts with single providers or a network of providers, for example physicians, hospitals, rehabilitative institutions or other health care professionals. While all of them need to be accredited within their sector, they may provide services across sectors within the scope of the integrated care contract (e.g. a hospital may provide outpatient services if it has a joint contract with an ambulatory physician). In addition, the contracting parties of an integrated care contract may decide to take over the guarantee of service provision for the insured population from the regional associations of SHI physicians. The guarantee of service provision may be shifted to the participating sickness funds and/or to the contracted network of preferred providers.

Under the new regulations and incentives, integrated care has attracted substantial interest among hospitals, most of which had been hesitant up to then to join DMPs. According to data from the BQS, which had been responsible from 2005 until 2008 for recoding information about integrated care contracts, an average of 1500 new contracts were concluded between 2004 and 2007;

75% of the sickness funds, which together represented 95% of people covered by SHI, concluded integrated care contracts. By the end of 2008, a total of 6407 contracts for integrated care had been registered (integrated care models with more than one sickness fund being counted multiple times). A potential total of 4.04 million individuals with SHI took part in these programmes. The number of insured individuals and models, however, varied considerably from region to region. The total financial volume of the contracts was estimated at €811 million in 2008 (Table 5.4). According to more recent figures (and a different methodology), the number of contracts was over 6000, the number of participants almost 2 million and the total expenditure volume around €1.35 billion in 2011.

Table 5.4
Integrated care contracts: number, participants and expenditure, 2004–2011

	2004[a]	2005[a]	2006[a]	2007[a]	2008	2009[b]	2010[b]	2011[b]
Approximate No. contracts	1 480	3 450	4 880	6 070	6 400[a,b]	6 260	6 370	6 340
Estimated No. participants (thousands)	680	2 970	3 760	3 960	1 660[b] to 4 040[a]	1 635	1 770	1 925
Estimated expenditure (€ millions)	250	500	650	770	810[a] to 1 225[b]	1 224	1 353	1 352

Sources: [a]Bundesgeschäftsstelle Qualitätssicherung, 2009a; [b]SVR, 2012.

In total, 16% of the contracts involved one or more hospitals as the direct contractual partner(s); 18% involved only hospitals and private-practice physicians; 11% involved hospitals and rehabilitative facilities; 30% involved private-practice physicians only; 2% involved rehabilitative facilities and private-practice physicians; 2% involved rehabilitative facilities, private-practice physicians and hospitals; and 19% involved other health care providers (Bundesgeschäftsstelle Qualitätssicherung, 2009a).

5.5 Emergency care

There are substantial regional variations among the 16 *Länder* with respect to the regulation, organization and financing of after-hours care, rescue care and emergency care.

Ambulatory physicians provide the major part of urgent care during regular practice hours or during after-hour services in their practice (and, if necessary, refer patients to other health care providers for subsequent treatment). Home

visits are provided by the vast majority of family physicians as part of their regular work and in rural areas also outside regular hours. Only a few specialists offer home visits.

After-hour services are coordinated by the regional associations of SHI physicians. They include telephone counselling, practice visits and home visits. Increasingly, after-hour services are also offered by ambulatory physicians at hospitals in the interests of efficiency and good hospital–community relations. In rural areas, individual ambulatory physicians also take part in emergency physician services in close cooperation with rescue organizations. However, their role in emergency services has been decreasing.

The legal mandate to provide physicians to staff ambulances is placed with the 16 *Land* governments, which usually delegate this to hospitals. Office-based physicians still have a role only in Bavaria and in rural areas in a few other *Länder*. Rescue services integrate the mobile services of emergency physician care, non-physician emergency care, fire protection and technical security. Often non-rescue patient transport is also part of the rescue package. There are about 360 control and coordination centres for rescue care in Germany, with uniform telephone numbers and criteria to differentiate between the need for rescue care and for emergency physician care. All *Länder* have, by law or in other regulations, defined maximum times for emergency services to reach people in need. These vary between 8 and 17 minutes after receiving the phone call (Sachverständigenrat für die Konzertierte Aktion im Gesundheitswesen, 2002).

The integration of rescue services outside the hospital somehow limits the full integration of an emergency care chain outside and inside the hospital. Outside the hospital, mechanisms of regulation, provision and financing differ from emergency care in the hospital outpatient or inpatient departments. Outside the hospital, emergency rescue care is usually regulated by ministries of the interior and often integrated with fire and technical security services. Emergency care in hospitals is regulated, planned and supervised by the ministries responsible for health at the state level.

Most *Länder* delegate the organization and delivery of rescue care to the municipalities. Within the framework of the state rescue law, local communities may accredit, regulate and plan for capacities of integrated public providers (mostly integrated with fire protection) as well as contracted private rescue providers. Among private providers, priority is clearly given to non-profit providers over profit-making providers in legislation as well as practice. Non-emergency transport is rarely performed by municipalities themselves but outsourced to private non-profit or for-profit providers. The latter play a

bigger role in this section of care than in other parts of the emergency care market, but welfare organizations still have priority in most *Länder* over private for-profit providers.

Financing rescue care follows a dual principle: while recurrent expenditure is financed by SHI or PHI or out of pocket, capital financing is mainly a task for the *Land*. For hospital-based emergency care, the dual principle also applies, albeit according to the general rules of hospital financing and planning (see section 3.6.1). With respect to capital financing, there are great variations among *Länder*: Baden-Wurttemberg finances investments in buildings, technical and organizational development if these are part of the rescue plan; Bavaria pays for transport vehicles and major technical equipment; North Rhine-Westphalia municipalities finance investments within their field of responsibility; Brandenburg explicitly enacts depreciation of investment costs as part of (negotiated) service prices.

However, contracting between sickness funds and providers outside the hospital is otherwise still rare (Sachverständigenrat für die Konzertierte Aktion im Gesundheitswesen, 2002). Instead a pure reimbursement system on a fee-for-service basis is in place, which may have been crucial in the increase of SHI expenditure on "transport" (§ 60 SGB V), an item which includes regular patient transfers as well as ambulance-based emergency and rescue care (see Table 3.2) (Sachverständigenrat für die Konzertierte Aktion im Gesundheitswesen, 2002). Co-payments have traditionally applied to non-emergency transport services, but since 2004, they also relate to emergency transport and services at the hospital. In addition, non-rescue patient transport has been excluded from SHI. A few exceptions have been outlined by the Federal Joint Committee, including the transport of patients with certain severe disabilities or in need of challenging ambulatory treatments such as chemotherapy and haemodialysis.

5.6 Pharmaceutical care

Pharmaceutical policy seeks to balance targets of health care and industrial policy. Health care policy is primarily concerned with safeguarding quality and safety, improving health and containing costs for the SHI system. At the same time, industrial policies seek to protect national labour markets and industries and their international competitiveness. Regulations concerning the pharmaceutical market, therefore, presented a dichotomy for a long time: On the one hand, regulations concerning pharmaceutical pricing and proof of efficacy were remarkably liberal; on the other hand, the surcharges on ex-factory

pharmaceutical prices were extremely regulated. Only recently have the structure and price regulations in the pharmaceutical distribution chain been addressed by health policy. Cost-containment has concentrated on the SHI market and has relied particularly on indirect price controls through reference prices since 1989 and on regional spending caps (1993–2001). The latter were replaced at the regional level by practice-specific prescription targets from 2002, coupled with prescription feedback for SHI physicians and stricter cost-cutting measures in the distribution chain through a manufacturers' rebate, an increase in pharmacy rebates and a generic substitution requirement. In 2004, the distribution structures were partially liberalized and OTC medication was excluded from SHI refunding. Since the Act to Strengthen Competition in SHI came into effect in 2007, new regulatory measures have included the introduction of upper reimbursement limits for drugs without reference prices, a bonus–malus system (incentive programme designed to give a negative bonus for poor performance) and the possibility for sickness funds to negotiate rebates with manufacturers.

The process to license pharmaceuticals for inclusion in the SHI benefit catalogue is described in detail in section 2.8.4. The following subsections concentrate on SHI-specific provisions governing price regulation, cost-containment and prescription data and evaluate their impact on physician prescribing behaviour and expenditure trends in various segments of the pharmaceutical market.

5.6.1 The entire pharmaceutical market

The pharmaceutical industry in Germany is among the most powerful in developed countries and contributes significantly to the export market. In 2009, 104 605 people were employed in 223 pharmaceutical-producing companies having at least 50 employees; in total 1100 licences were issued to produce pharmaceuticals (Bundesverband der Arzneimittel-Hersteller, 2010). Of the pharmaceutical industry's total turnover of €38.1 billion, €14.3 billion was gained in the domestic market and €23.8 billion from exports (62.5%). Looking at production size, Germany ranks third after the United States and Japan, making it the largest producer within Europe (Verband der forschenden Pharma-Unternehmen, 2011).

Of the €45.3 billion spent on drugs in 2011, €38.0 billion (84%) was spent on community pharmacies, €3.9 billion (8%) on acute hospital care and €3.4 billion (7%) on other providers (Table 5.5). Of the €38.0 billion spent on drugs in community pharmacies in 2011, €33.5 billion was spent on prescription drugs and €4.5 billion on OTC medication. In real prices, expenditure on OTC drugs increased until 1997 but decreased subsequently, while prescription drug costs rose continuously (Statistisches Bundesamt, 2014b).

Table 5.5

Expenditure on pharmaceuticals by funding source and institution, 1996–2011

	1996	1997	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total expenditure on drugs (€ billions)	**27.7**	**28.2**	**31.6**	**34.2**	**35.8**	**36.7**	**35.5**	**39.4**	**39.7**	**41.7**	**43.2**	**45.2**	**46.3**	**45.3**
By funding source (€ billions)														
SHI	19.0	18.3	21.8	24.0	25.4	26.0	24.0	27.6	28.2	30.2	31.6	33.5	33.8	32.7
Private health insurance	1.3	1.4	1.8	1.9	2.1	2.3	2.3	2.4	2.5	2.7	2.9	3.1	3.1	3.2
Private households[a]	6.1	7.1	6.4	6.5	6.4	6.5	7.3	7.4	7.0	6.7	6.6	6.5	7.1	7.2
Other sources[b]	1.3	1.4	1.6	1.8	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.2	2.3	2.2
By institution (€ billions)														
Community pharmacies	24.2	24.5	27.5	29.9	31.1	31.9	30.5	34.0	33.9	35.5	36.7	38.3	39.1	38.0
Acute hospitals	2.2	2.3	2.6	2.7	2.8	2.8	2.9	3.1	3.3	3.4	3.5	3.6	3.8	3.9
Other institutions	1.3	1.4	1.5	1.6	1.9	2.0	2.1	2.3	2.5	2.8	3.0	3.2	3.4	3.4
Community pharmacies expenditure on drugs														
% of GDP	1.29	1.28	1.33	1.41	1.45	1.47	1.38	1.51	1.46	1.47	1.47	1.59	1.57	1.52
By SHI (€ billions)	16.6	15.8	18.6	20.6	21.7	22.0	19.8	23.1	23.2	24.9	26.0	27.5	27.5	26.4
By SHI as % of GDP	0.88	0.82	0.90	0.97	1.01	1.02	0.90	1.03	1.00	1.03	1.04	1.14	1.10	1.01
By SHI as % of total SHI expenditure	14.3	13.7	15.0	16.0	16.3	16.2	15.1	17.0	16.6	17.1	17.2	16.1	16.6	15.6
By private health insurance (€ billions)	1.2	1.2	1.6	1.7	1.9	2.1	2.1	2.2	2.3	2.5	2.7	2.8	2.8	2.9
By private households (€ billions)[a]	5.5	6.3	5.9	6.1	6.0	6.1	6.9	7.1	6.7	6.4	6.3	6.2	6.8	6.9
Of which on co-payments	1.5	2.3	1.9	1.8	1.8	1.8	2.4	2.3	2.1	1.8	1.8	2.0	2.1	2.1
By other sources (€ billions)[b]	0.9	1.2	1.4	1.5	1.5	1.7	1.7	1.6	1.7	1.7	1.7	1.9	2.0	1.8

Sources: Statistisches Bundesamt, 2014b; Schaufler et al., 2013.
Notes: [a]Includes expenditure from non-profit organizations, but this is negligible; [b]Includes expenditure from statutory retirement insurance, statutory insurance for occupational accidents and disease, taxes and employers.

Table 5.5 shows trends in pharmaceutical expenditure by sickness funds, private health insurers and private households. Of the total pharmaceutical expenditure in 2011, 72% was spent by SHI, 7% by PHI companies, 16% by private households (and non-profit organizations) and the remaining 5% by other sources. In the 1990s, pharmaceutical cost-containment measures buffered the rising trends in SHI expenditure. Between 1997 and 2003, total expenditure on drugs increased by 42% and SHI expenditure on drugs by 30%. Expenditure on drugs by private households decreased in that period, followed by an increase in 2004, reflecting the impact of the SHI Modernization Act. The Act excluded OTC drugs from reimbursement and increased cost-sharing of prescribed drugs to 10% (minimum €5, maximum €10 per pack; see section 3.4).

According to data from the Federal Ministry of Health, recipients of the total SHI pharmaceutical turnover of €27.8 billion in 2010 were as follows: pharmaceutical companies €17.9 billion (64.5%), government (value-added tax (VAT)) €4.4 billion (16%), pharmacies €4.3 billion (15.5%) and wholesalers €1.1 billion (4%). These shares differed between patented drugs (75.5%, 16%, 4% and 4.5%, on average, respectively) and generics (44.6%, 16%, 36% and 3.4%, respectively) (Bundesministerium für Gesundheit, 2013a).

The pharmacy surcharge and VAT in Germany are among the highest in western Europe. VAT in Germany was 16% in 2006 and, therefore, relatively low compared with most EU15 countries; since 2007 it has been 19%, or about average among the EU15. Nevertheless, unlike most EU Member States, Germany does not have a reduced VAT for pharmaceuticals, which means that the 19% figure is high for this category of products.

An analysis of prescriptions is undertaken annually by a sickness fund-affiliated institute. Although the report (the SHI Pharmaceutical Index (*GKV-Arzneimittelindex*)) does not provide patient data that could be used to evaluate appropriateness, it is nevertheless of value for assessment of trends in prescription behaviour of physicians. The report is based on virtually all drug prescriptions in the ambulatory care sector and is jointly maintained by several corporatist associations. It does not include prescriptions paid by PHI, drug supply in hospitals or OTC drugs. The classification of different substances uses the WHO Access to Care standard. Until 2000, the report was only based on a representative sample of 0.4% of all prescriptions covered by sickness funds. On the basis of expenditure, panel data are projected to 100% of prescriptions. This methodical change has to be considered when comparing data between periods before and after 2000 (Schwabe & Paffrath, 2013).

In 2012 SHI-covered people were prescribed an average of 538 defined daily doses (DDDs). The prescription rate varied by age, between 76 DDDs in those aged 20–24 years and 1609 DDDs in those aged 80–84 years. Children under 4 years received 215 DDDs and people over 90 received 1397 DDDs per year (Schaufler & Telschow, 2013a).

In 2012, each SHI-affiliated physician prescribed an average of 3111 "ready preparations" in 184 000 DDDs, with an average turnover of €150 000. The greatest number of prescription were issued by GPs (51.4%) and internists (18.0%), followed by gynaecologists, paediatricians and ophthalmologists (Schaufler & Telschow, 2013b).

In 2012, the average turnover was around €48.03 per prescribed package, the costs varying by speciality from €21.50 for paediatricians, €32.74 for GPs and €33.93 for ENT doctors to about €219.00 for gastroenterologists and €399.03 for oncologists/haematologists (Schaufler & Telschow, 2013b).

5.6.2 Distribution of pharmaceuticals

Pharmaceuticals may be dispensed by hospital, institutional and "public" (though privately owned) community pharmacies and, if they are not labelled "pharmacy-only", by drug stores and supermarkets. These include vitamins, minerals and some phytotherapeutic products. Pharmacy-only products include all prescriptions pharmaceuticals and non-prescription items such as nicotine-replacement items, homoeopathic drugs and anthroposophic drugs (see section 2.8.4).

The majority of pharmaceutical prescriptions are made in the ambulatory care sector. Public pharmacies are clearly dominant in the distribution: of the 1448 million packages sold in 2010, 1379 (95%) were sold in pharmacies, which included 690 million prescription packages and 689 million pharmacy-only products, with the former accounting for 85% of total turnover (Bundesverband der Arzneimittel-Hersteller, 2010).

The density of pharmacies is relatively high by international standards and has slightly decreased since the early 2000s, to 21 548 pharmacies in 2009, of which 3224 were branches. This equals a density of 26 pharmacies per 100 000 inhabitants (or 3806 inhabitants per pharmacy). The density is highest in Saarland at 3000 inhabitants per pharmacy and lowest in Brandenburg at 4400 inhabitants per pharmacy (Bundesministerium für Gesundheit, 2010b). All these "public" pharmacies are actually privately owned, and operated by self-employed pharmacists who are mandatory members of pharmacists' chambers; these pharmacists had a monopoly over drug dispensing in

ambulatory care until 2003 and the introduction of e-commerce and extended allowances to hospital pharmacies, which may also give medications to SHI-covered patients if their funds have negotiated an agreement with the hospital. From August 2002, hospital pharmacies have received an allowance to deliver certain medications, especially chemotherapies, directly to office-based physicians. Office-based physicians may not dispense medications, with few exceptions. Until 2003, pharmacists were only allowed to own one pharmacy. Since 2004, they may run a maximum of four, and the three branch pharmacies must be in the same or a neighbouring county as the main pharmacy.

Since enforcement of the SHI Modernization Act in 2004, the structure of the pharmaceutical sector has changed substantially. The market was "liberalized" for pharmaceuticals: for example, e-commerce of pharmaceuticals was allowed under strictly regulated conditions, pharmacists could operate more than one pharmacy, and OTC drugs were taken out of the requirement to charge uniform prices (see section 5.6.4). The Internet trade in OTC drugs grew substantially in the first few months. According to the Federal Association of Pharmacists' Organizations, 5% of daily customer contacts with pharmacies (3.5 to 5.0 million) between January and July 2004 took place on the Internet. A total of 600 pharmacies had obtained licences to trade drugs via the Internet during this period. About 5000 pharmacies took part in the largest network of Internet-based pharmacies (Aponet), which was established by the Federal Association of Pharmacists' Organizations. Customers could place orders but had to pick up their purchases in person at a pharmacy; it has since been discontinued.

5.6.3 Price regulation for the entire pharmaceutical market

The regulation of pharmaceutical prices differs between the inpatient sector and the ambulatory sector. While hospitals may negotiate prices with wholesalers or manufacturers, the distribution chain and prices are much more regulated in the pharmacy market. In both sectors, ex-factory prices are basically determined by manufacturers without negotiations involving governmental agencies, direct price controls or profit controls. However, price setting by companies takes into consideration (price) regulations in other parts of the market, for example indirect price regulations in the form of reference prices and legal minimum sales from parallel imports. Drug companies have also been obliged to give rebates to sickness funds or in certain years to pay lump sums.

However, the legislator has also intervened in price setting in order to contain costs within the SHI system. For example, at the same time that the Health Care Structure Act introduced spending caps, it also set a price reduction of 5% for drugs without reference prices and froze the manufacturers' rebate for

patented drugs (both measures applied to the years 1993 and 1994). In the wake of the SHI Reform Act in August 2010, similar measures – freezing ex-factory prices and a rebate of 16% for non-reference-priced drugs – were reintroduced until the end of 2013.

The cornerstones of price regulation were barely changed between 1980 and 2003, but were substantially revised with effect from 2004. From 1980 to 2003, pharmacists and wholesalers were paid by digressively scaled margins as detailed in the Pharmaceutical Price Ordinance (*Arzneimittelpreisverordnung*). As the absolute size of the margin still increased with a product's price, there was little incentive for a pharmacist to dispense a less expensive medicine. The margins for wholesalers and pharmacists were decreased in 2002. In 2004, the payment for pharmacists was substantially revised by the SHI Modernization Act (which in this respect also affected non-SHI-covered patients). This entailed the liberalization of OTC medication prices and a revision of the price-setting regulations for prescription-only drugs. The new "Pharmaceutical Price Ordinance for Prescription-only Pharmaceuticals" applies to the entire prescription-only market independent of the source of payment. It applies to human and animal drugs and to public pharmacies, but not to institutional pharmacies or to vaccines, blood replacement and dialysis-related drugs, for which sickness funds negotiate prices with manufacturers. Additionally, the competencies of sickness funds to negotiate volumes and prices for certain other drugs by circumventing pharmacies and/or wholesalers have been extended since 2004.

For prescription-only drugs, pharmacists are now paid through a flat-rate payment of €8.35 plus a fixed margin of 3%. The retail price contains an additional 19% VAT (16% before 2007). The margin of 3% is calculated from the manufacturer's price plus the relevant maximum margin for wholesalers (excluding VAT).

For non-prescription pharmaceuticals, pharmacies can freely determine the prices. Exempt from this rule are pharmaceuticals that, in principle, do not require a prescription but for which, for certain indications, physicians may issue prescriptions which will then be paid by the sickness fund. The Federal Joint Committee has published a list of these exceptions. For these, the Pharmaceutical Price Ordinance in the version of 31 December 2003 applies. Here, the defined percentage surcharge on the pharmacy cost price (i.e. manufacturer sales price plus wholesaler margin) valid up until 1 January 2004 continues to be charged.

The abolition of price maintenance for non-prescription pharmaceuticals has not up to now led to a reduction in prices of non-prescription pharmaceuticals. Although price reductions have been observed for travel packages, some lifestyle pharmaceuticals and selected high-price pharmaceuticals (in competition with hospital pharmacies), the overall price level has not decreased as the abolition of fixed prices was also used for price increases.

5.6.4 Price regulation for pharmaceuticals covered by SHI

Besides the price regulations along the distribution chain that apply to the entire ambulatory pharmaceutical market, special regulations are in force for sickness funds. The main instruments, which are described in turn, are (1) rebates, discounts and price freezes; (2) reference prices; (3) reimbursement limits (*Höchstbeträge*); (4) reimbursement amounts (*Erstattungsbeträge*); and (5) indirect instruments such as generic substitution and parallel imports.

Rebates, discounts and price freezes

The SGB V uses the term "rebate" for several instruments: (1) a legally imposed rebate which all pharmacies have to give to the sickness funds for every pack dispensed to a SHI-covered person (§ 130 SGB V); (2) an additional legally regulated rebate which the manufacturers are obliged to give to the sickness funds (§ 130a, sections 1–3 and 3b SGB V); (3) "rebates" for the sickness funds made by the manufacturers in the case of negotiated discount contracts between individual sickness funds and manufacturers (§ 130a, section 8 SGB V); (4) "price freezes" are also technically realized through potential rebates (§ 130a, section 3a SGB V), where the law speaks of "rebates" on the manufacturer's price to achieve the reimbursement amounts (§ 130b SGB V; see section 5.6.4). For an international comparison of prices and thus expenditure, it is important to consider that these rebates and discounts are often not considered in prices and expenditure (and, therefore, lead to an overestimation of actual pharmaceutical prices and expenditure in Germany).

1. *The legally imposed rebate*. Pharmacies are obliged to give a rebate to the sickness funds, as the SHI system constitutes the major customer in the pharmacy market. Until 2003, this was a fixed percentage of the final pharmacy price of drugs. Since 2004, with the change of the pharmacy surcharge towards a fixed amount for prescription-only drugs, the rebate has been a fixed amount as well: initially €2 per pack, which increased to €2.30 from 2007. For 2009 and 2010, the negotiated rebate was €1.75. For 2011 and 2012, the Pharmaceutical Market Restructuring Act increased the rebate again to €2.05. Since then, the rebate has been (again) negotiated between the

sickness funds and the pharmacists' organizations collectively; it has been €1.80 for 2013 and 2014 and will decrease to €1.77 in 2015. For those OTC drugs still paid by SHI (based on the Federal Joint Committee's exemption list), pharmacies still have to give a rebate of 5%. In 2012, the pharmacy rebates amounted to €1.2 billion, or around 4% of SHI pharmaceutical expenditure (Bundesministerium für Gesundheit, 2013b; Schaufler et al., 2013).

2. *Additional legally regulated rebate that manufacturers have been obliged to give to the sickness funds.* Since 2003, this rebate has been 6% for most years for SHI-covered drugs without reference prices, but was transiently set at 16% for 2004 and contributed substantially to the savings generated for sickness funds in that year. The 2006 Act to Improve Efficiency in Pharmaceutical Care stipulated that manufacturers must give a 10% rebate on generic preparations unless the price is 30% below the reference price. For drugs not included in the reference-price scheme, the rebate was again increased to 16% from August 2010 until the end of 2013. Since April 2014, the manufacturers' rebate for drugs outside the reference-price scheme has been set at 7% for patented drugs and 6% for off-patented drugs (which are, however, usually included in the reference-price scheme). In 2012, the manufacturers' rebates amounted to €2.5 billion or around 8% of SHI pharmaceutical expenditure (Bundesministerium für Gesundheit, 2013b).
3. *Negotiated discount contracts between individual sickness funds and manufacturers*. Since 2003, sickness funds have been able to conclude discount contracts with pharmaceutical manufacturers; however, only since 2007 have pharmacies been obliged to actually dispense the contracted drug to the insured if not explicitly excluded by the prescribing physician. The sickness funds thus guarantee the exclusive use of a particular drug, and manufacturers give negotiated discounts to the sickness funds. At the end of 2012, almost all sickness funds had negotiated discount contracts, with a total of 34 879 pharmaceuticals under contract. The sum of SHI rebate contracts in 2010 amounted to €1.3 billion, corresponding to 9.6% of the €13.7 billion turnover in the market of products eligible for production of generic equivalents; it increased to €2.1 billion (14% of the generics turnover) in 2012 (Schaufler et al., 2013). Statistics from the Ministry of Health quantify total savings at €2.4 billion or 8% of total SHI pharmaceutical expenditure in 2012 (Bundesministerium für Gesundheit, 2013b).
4. *"Price freezes" technically realized through potential rebates*. Additionally, manufacturers have been banned from increasing prices for sickness funds during certain periods. These are called "price freezes" but as pricing is free in Germany they are technically realized through increasing rebates

that a manufacturer has to give to sickness funds to match the increase of the market price. Since August 2010, prices in the SHI segment have been "frozen" at the level of August 2009.

Reference prices

Reimbursement of pharmaceuticals has been further regulated by reference prices as a means of exerting indirect price control. The reference-price system establishes an upper limit for sickness fund reimbursements, based on § 35 SGB V, which stipulates that reference prices be defined for drugs with the same or similar substances or with comparable efficacy. While the Federal Joint Committee is responsible for the identification and classification of drugs, the Federal Association of Sickness Funds does the actual setting of reference prices. Reference prices mean that sickness funds only reimburse pharmacies up to a predefined ceiling and patients pay the difference between the reference price and the market price. Before 1992, drugs with a price that was equal to or lower than the reference price did not require any co-payment. Since 1993, flat-rate co-payments have to be paid on top of the price differential. It is noteworthy that very few drugs now exceed the reference price because of competition within the reference-price groups and the legal obligation for physicians to inform patients that they are liable for the price difference. Since 2006, pharmaceuticals that are at least 30% below the reference price are exempted from co-payments.

The 1998 Act to Strengthen Solidarity in SHI introduced tighter regulations for the setting of reference prices, prohibiting them from being higher than the highest price in the lowest third of the market. For 202 out of a total of 446 drug groups with reference prices, prices were supposed to be lowered from 1 April 1999, for a saving of approximately €280 million. However, this reduction was blocked and reference prices altogether came under legal threat. The pharmaceutical industry filed several court cases arguing that sickness funds were not authorized to set (indirect) price controls for patented drugs by including them in the reference-price scheme. Therefore, the Federal Assembly (*Bundestag*) passed the Reference Price Adjustment Act (*Festbetragsanpassungsgesetz*) to transfer the function of adjusting reference prices to the Ministry of Health for 2002 and 2003. Yet, the Federal Constitutional Court (December 2002) and the European Court of Justice (early 2004) approved the sickness funds' role in influencing prices in the SHI market as institutions acting in a publicly delegated function.

The reference-price scheme for pharmaceuticals proved to be an effective measure for cost-containment. Because of patients' attempts to circumvent co-payments, demand for pharmaceuticals below the reference-price ceiling has increased. The industry has partly compensated for the lower prices for drugs formerly above the reference price with above-average increases for non-reference-priced drugs. The annual savings for sickness funds from the reference-price scheme increased from €0.2 billion in 1989 to €1.6 billion in 1999. For 2011, the Federal Association of Sickness Funds estimated the savings potential to amount to approximately €5.2 billion (GKV-Spitzenverband, 2011). In relation to the gross turnover of the pharmacies in the pharmaceutical market financed by the SHI, the share of reference-price pharmaceuticals in January 2011 was 37.8% of turnover and 75.7% of prescriptions. The share of reference-price pharmaceuticals in the gross turnover of pharmacies in the pharmaceutical market financed by the SHI varied from 30.7% in the area of the Regional Association of SHI Physicians of Hamburg to 41.9% in the area of the Regional Association of SHI Physicians of Westfalen-Lippe. The prescription share of reference-price pharmaceuticals varied from 73.2% in the area of the Regional Association of SHI Physicians of Hamburg to 77.9% in the area of the Regional Association of SHI Physicians of North Rhine (GKV-Spitzenverband, 2011).

The SHI Modernization Act extended the reference-price regulations to new patented pharmaceuticals provided that no additional therapeutic benefit is observable for such products compared with products which are already on the market. Therefore, a patent no longer per se guarantees the manufacturer that reference prices will be avoided. Similar legislation applied up until 1995 and was abolished in 1996 upon pressure from the pharmaceutical industry. As late as April 2003, the Federal Council (*Bundesrat*) had rejected the introduction of a similar reference-price provision as a part of the 12th Act Amending the Social Code. Since 2004, the Institute for Quality and Efficiency in Health Care may support the Federal Joint Committee and the Federal Association of Sickness Funds in classifying new pharmaceuticals according to their degree of innovation and effectiveness with comparative pharmaceuticals. In August 2004, statins, sartans, triptans and proton pump inhibitors were included in the reference-price scheme, leading to the inclusion of a large number of drugs still with active patents.

In 2006, the Act to Improve Efficiency in Pharmaceutical Care extended the reference-price scheme yet further. It stipulated that reference prices for drugs with the same or similar substances or with comparable efficacy also should not be higher than the highest price in the lower third of the market, with the goal of achieving savings of €360 million annually.

Through the Pharmaceutical Market Reform Act, the reference-price system was again strengthened as a mechanism of price regulation. For example, it is now taken into consideration during the creation of reference-price groups that a sufficient number of pharmaceuticals should be available without cost-sharing for the patient (Coca, Nink & Schröder, 2011).

Since the Pharmaceutical Market Reform Act, pharmaceutical manufacturers have been made subject to an obligation to file with the Federal Joint Committee upon market introduction a dossier with proof of the additional benefit of such products. On the basis of the filed dossier, the Federal Joint Committee initiates a timely benefit analysis with which it can assign the Institute for Quality and Efficiency in Health Care or a third party.

The Federal Joint Committee decides whether a new pharmaceutical has additional benefits, and what these are. Pharmaceuticals that do not have an additional benefit are classified into an existing reference-price group. This means that reimbursement is limited to the price of similar pharmaceuticals. Should this not be possible because other pharmaceuticals that are comparable under pharmacological–therapeutic aspects do not exist, the manufacturer will agree a reimbursement price with the SHI that must not lead to higher costs than the comparable therapy (for pharmaceuticals with an additional benefit, see section 5.6.4).

Reimbursement limits (2007–2010)

Between 2007 and 2010, the Federal Association of Sickness Funds could set upper reimbursement limits for drugs that were not part of a reference-price group. The sickness funds would reimburse the cost of the drug up to this limit. Before an upper reimbursement limit was set, the manufacturer of the drug in question had to be given the opportunity to make a statement on the matter. The upper reimbursement limit had to take adequate account of the costs of developing the drug. Moreover, the Act intended for the upper reimbursement limit also stated that it should be based on a cost–benefit analysis. If a drug was shown to be cost-effective, or if there was no alternative treatment, an upper reimbursement limit would not be applied (§ 31 SGB V). The Institute for Quality and Efficiency in Health Care was responsible for conducting the cost–benefit analysis. In addition to the additional benefits for patients (health status, life expectancy, length of illness, side-effects and quality of life) in relation to a drug's cost, the suitability and reasonableness of having the insured community take on the costs of reimbursement also had to be considered (Marburger, 2007).

Reimbursement amounts (since 2011)

For pharmaceuticals with additional benefit according to the decision of the Federal Joint Committee, the Federal Association of Sickness Funds (after coordination with the Association of Private Health Insurance Companies) negotiates, with effect for all individuals insured in the SHI and also for all those insured in PHI, a so-called reimbursement amount as a (discounted) price at which the relevant company has to sell the product (i.e. in contrast to reference prices, a cost-sharing for the patient through higher pharmacy sales prices is not permitted).

If both parties are unable to agree on a reimbursement amount within six months from the publication of the Federal Joint Committee's decision on the additional benefit, an arbitration board will be called which will fix this price within not more than three months, for example on the basis of international comparison prices. The reimbursement amount determined in the arbitral decision applies retroactively from the 13th month after market introduction onwards. Through the mandatory price negotiations, the government hopes to achieve annual savings of approximately €2 billion (Bundesministerium für Gesundheit, 2010c).

By the end of 2013, reimbursement amounts for 41 pharmaceuticals with additional benefit had been determined. The parties mutually agreed the reimbursement amount for 37 pharmaceuticals and the arbitration board had to decide on the other four (GKV-Spitzenverband, 2014).

Indirect instruments

Another form of indirect price regulation in the SHI pharmaceutical market is the aut-idem ("or the same") provision introduced in 2002 through the Pharmaceutical Expenditure Limitation Act (*Arzneimittelausgaben-Begrenzungsgesetz*). The Act imposes upon pharmacies the obligation to sell a pharmaceutical that is cheaper than the original product provided that the physician issuing the prescription merely states the name of the active ingredient and/or has not excluded the replacement of the pharmaceutical by another product with the same active ingredient. If a rebate contract exists between the sickness fund and the pharmaceutical manufacturer, this contract takes priority over the aut-idem provision.

In order to open up additional savings potential for the SHI, the Pharmaceutical Expenditure Limitation Act also imposed upon pharmacists the obligation to sell more inexpensive products from other countries if the price difference in comparison to the domestic products is at least €15 or 15%. From 1998 to 2008, the market share of the pharmaceuticals imported

in parallel into the pharmacy market increased from less than 2% to almost 9% (GKV-Spitzenverband, 2009). Because of the priority of individual rebate contracts over the sale of parallel imports, this provision has lost significance since the introduction of the Act to Strengthen Competition in SHI (Coca, Nink & Schröder, 2011).

The highly controversial bonus–malus provision was introduced in 2007 with the Act to Improve Efficiency in Pharmaceutical Care as a further steering instrument. For certain therapies, the regional associations of SHI physicians together with the sickness funds defined the average costs per DDD that result from an efficient prescription process. If the physician who issued the prescription exceeded the average costs by more than 10%, he/she had to pay a compensatory amount (malus) into the sickness fund. Cost-efficient prescriptions on the part of the physicians, by comparison, were rewarded with a group bonus. If the expenses for the pharmaceuticals prescribed overall by the contracting physicians of one regional association of SHI physicians were below the average costs of the therapy, the group bonus was paid to the regional association, which then distributed the generated bonus among the contracting physicians. The bonus–malus provision was abrogated in 2011 with the Pharmaceutical Market Reform Act.

5.6.5 Spending caps

Spending caps – referred to confusingly in the SGB as "budgets" – were a prominent measure to contain pharmaceutical expenditure from 1993 until 2001. After 2002, spending caps were abolished and replaced by negotiated targets of cost-control and appropriate prescriptions. The new initiative was supported by a long-overdue introduction of a uniform feedback system for drug prescriptions, which came into operation for the use of individual ambulatory physicians only in March 2003.

The spending caps, introduced in 1993, imposed a real reduction in pharmaceutical expenditure, accounting for €13.7 billion in 1992 (western regions). Based on the 1991 expenditure of €12.5 billion, it reduced future spending to a maximum of €12.2 billion per year from 1993.

From 1994 to 1997, every single regional association of SHI physicians (western and eastern) was formally liable for any overspending with no upper limit, even if total pharmaceutical spending remained below the cap. The spending cap levels were subject to regional negotiations between the associations of sickness funds and the then 23 regional associations of SHI physicians. Although spending exceeded "budgets", the expenditure ceiling

proved to be effective in short-term reduction and long-term control of pharmaceutical expenditure (Schreyögg & Busse, 2005; see also Busse & Riesberg, 2004).

With the 2nd SHI Restructuring Act, the regional spending caps for pharmaceuticals were abolished from 1998 and were replaced by practice-specific target volumes. Physicians exceeding 12.5% of the prescription target were required to compensate the respective sickness fund unless they could document "special requirements of the surgery" (*Praxisbesonderheiten*) including certain high-cost drugs and certain patient groups, for example patients requiring care after a transplant or who were terminally ill. These prescription targets for individual practices have basically been maintained since then while the context for collective responsibilities for drug expenditure was amended by subsequent reforms (see section 5.6.6).

The Act to Strengthen Solidarity in SHI reintroduced spending caps for pharmaceuticals at the regional level from 1999, initially strictly capped at a legally set limit. The regional associations of SHI physicians became liable for any overspending up to 105% of the cap. As a kind of compensation, debts resulting from the former spending cap were waived. To protest against the reintroduction of collective liability, several physicians filed constitutional complaints. The Federal Constitutional Court declined to debate their case until the threat of collective sanctions for overspending a regional spending cap for drugs had been realized. In fact, collective sanctions have never been executed because of legal uncertainties associated with charging people without individual infringement. Yet, regional spending caps for pharmaceuticals continued to be met with substantial resistance.

The Pharmaceutical Budget Redemption Act (*Arzneimittelbudget-ablösungsgesetz*), enacted at the end of 2001, re-abolished the legally required spending caps for pharmaceuticals and the collective liability of physicians for exceeding the regional spending limit. Despite this, the regional associations of SHI physicians and the associations of sickness funds are still required to negotiate a yearly "budget" and use target volumes for individual practices. The contractual partners are requested to negotiate an adequate level of drug spending caps based on guidelines that the Federal Association of Sickness Funds and the Federal Association of SHI Physicians issue jointly on an annual basis. These are based upon the legal provision that negotiations shall take into consideration, among other factors, expected changes from legal or negotiated cost-containment measures, regional needs and shifts in the market, including the entry of innovative drugs or generics. Sanctions for exceeding drug budgets

are not obligatory but the self-governing actors are free to make use of them as a contractual component. The Act made the introduction of negotiated target volumes for individual practices and related data management obligatory. The associations of sickness funds, which previously had insisted on regional spending caps, became now obliged to accept the target volumes and to provide prescription feedback to SHI-affiliated physicians.

5.6.6 Prescription controls in the SHI

The sickness funds and each regional association of SHI physicians set target volumes pursuant to § 84 SGB V for physicians in each medical specialty. These correspond to the average prescription volume per calendar quarter for each specialty. SHI physicians who exceed their individual target limit by more than 15% are advised in writing to critically reconsider their prescription behaviour. The legal limit for overprescribing and paying-back has been set at 125% of the individual target. Those physicians who exceed the target by 25% are asked to justify the overprescription. If their arguments are rejected, they are subject to recourse and usually pay back the difference between the overprescribed amount and 115% of the target. The amounts paid back by physicians are allocated to the sickness funds according to the number of cases treated by the physician in question.

As a first step towards achieving the individual target volumes, each regional association of SHI physicians subtracts from the yearly gross budget certain types of drug and drugs for patients with certain indications. Subsequently it allocates the remaining budget to different medical specialties, usually on the basis of prescription volumes of the year before. In most regions, the budget of each specialty is again divided into two subsections, one for the treatment of pensioners and one for non-pensioners, based on the respective prescription volumes of the previous year. These sub-budgets are finally divided by the number of pensioners and non-pensioners, resulting in a target of how much can be prescribed, on average, per retired and per non-retired person for each specialty. The targets for individual physicians for the current year are calculated ex-post by multiplying the total number of treated cases (pensioners and non-pensioners) for each physician by the target of each speciality (Schreyögg & Busse, 2005).

In addition to the (never realized) threat of collective sanctions and the partly realized threat of individual sanctions for exceeding target volume limits by individual physicians, two other types of prescription control influence physician behaviour: regular audits based on a physician's average prescription

volume and sickness funds' reclaims from individual physicians based on so-called "other damage". The latter has amounted to 25 000 annually in recent years and refers mainly to non-compliance with the Pharmaceutical Directive of the Federal Joint Committee, for example by prescribing drugs excluded from the SHI benefits package or not licensed for the respective indication (off-label). The regulations regarding the latter were relaxed, however, by the Act to Strengthen Competition in SHI (Schreyögg & Busse, 2005; see section 2.8.4).

While controls were enhanced, physicians also received increased prescription feedback and information from their regional association of SHI physicians, from sickness funds and through their commercial practice software. Together with the revised target volumes, an early information system was provided for physicians containing a representative sample of pharmacies in each region so that regional associations of SHI physicians could forecast the prescription volumes of certain specialist groups and individual physicians. Those physicians who exceeded the target received the information as an early warning. Since 2000, every SHI-accredited physician has been informed about the real prescription behaviour of physicians in the region, based on a federal information system about SHI-covered prescriptions known as GAmSi (*GKV-Arzneimittel-Schnellinformation*; GKV-Spitzenverband, 2009). Since 2003, they have also received a three-monthly overview of the aggregate prescription volume of their specialist group in the region and their individual prescription volume. In this way physicians are able to adjust their future prescription behaviour according to the provided data. The prescription feedback system GAmSi monitors the attainment of negotiated goals. It is based on indicators that have been agreed at federal level and has up to now focused merely on cost-containment rather than on quality, safety or equity: an increase in the share of prescriptions as well as turnover from generics and parallel imports and a decrease in the share of disputed drugs and "me-too" drugs (analogous agents with no or only marginal difference from approved agents). In addition, the share of "special preparations" reflects access to high-cost drugs for certain diseases. In May 2005, the Federal Association of SHI Physicians and the Federal Association of Sickness Funds launched an information portal known as *Arzneifokus* (literally, "Pharmaceutical Focus"), which makes available the pharmaceutical guidelines of the Federal Joint Committee and pharmaceutical information from the Institute for Quality and Efficiency in Health Care.

5.6.7 SHI expenditure and prescription behaviour

In 2012, gross turnover of pharmaceuticals reimbursed by the SHI amounted to €30.4 billion, corresponding to an increase of €1.2 billion (+2.4%) compared with 2011 and €8.7 billion (+40%) since 2004. As stated above, it must be remembered that these figures do not include either the legal rebates for pharmacies and manufacturers (which have increased over time, see Table 5.6) or the negotiated discounts (see section 5.6.4).

A further development is the increased prescription volume according to DDDs, which increased by 1.3 billion DDDs (+3.6%) in 2012 compared with 2011 and 11.4 billion DDDs (+44%) since 2004. This means that every individual insured in the SHI on average received 538 DDDs in 2012. While the DDD volume of generic products increased by 1.8 billion (6.5%) in 2012 compared with 2011, the DDD volume for non-generic products decreased by 0.4 billion (4.7%) (Schwabe, 2013).

Table 5.6 shows that these indicators and a few others have changed substantially since 1992. While prescription volumes reflect prescription behaviour as well as patients' needs, figures on SHI turnover additionally reflect changes in the type and cost of drugs available in the ambulatory drug market.

While the total number of prescriptions had remained at a constant level or even increased before the introduction of regional spending caps for drugs in 1993, it clearly decreased afterwards. The reason is to be found partly in larger packages, induced by cost-sharing mechanisms (with the overall amount of prescribed DDDs remaining stable), and partly in a decrease in prescriptions for drugs with disputed effectiveness between 1992 and 2006. Physicians obviously amended their prescription behaviour to the new situation on the basis of "budgets", sanctions and prescription information as well as cost-sharing regulations for patients.

In the first period of regional spending caps with collective liability (1993 to 1997), the number of prescribed drugs was reduced at a compound annual decrease of 9.8% per year. In the second period of regional spending caps for drugs, from 1998 to 2001 – allowing a substitution of spending caps by target volumes with individual liability – the number of drugs with disputed effectiveness did not fall as much in nominal terms, but the yearly reduction according to the compound annual growth rate was even larger (10.3%). In the third period of spending caps for drugs in 2002 – allowing only target volumes as "budgetary" regulation – the number of prescribed drugs with disputed effectiveness was again reduced by 7.6% (Schreyögg & Busse, 2005).

Table 5.6

Trends in prescribing behaviour for SHI insured and turnover in the SHI pharmacy market, 1992–2012

	1992	1994	1996	1998	2000	2002	2004	2005	2006	2007	2008	2009	2010	2011	2012
Prescriptions															
Millions of packages	1 063	915	939	807	749	761	570	591	574	594	608	626	626	625	633
Defined daily doses (billions)	29.7	28.4	29.9	28.6	28.8	30.5	26.1	28.0	28.6	30.6	32.4	34.1	35.4	36.2	37.5
Disputed drugs (% of all prescriptions)	37.5	33.8	31.7	27.5	21.8	18.7	9.4	8.8	7.6	7.3	6.7	6.1	5.4	5.1	4.9
Generics (% of potential generic prescriptions)	59.5	60.8	63.1	65.7	71.0	74.7	74.1	74.2	76.7	82.1	85.1	86.1	86.2	86.8	86.9
Turnover															
Gross (€ billions)	17.1	15.8	17.7	18.2	19.3	22.7	21.7	23.6	23.7	25.3	26.7	28.5	29.7	29.7	30.4
Of which legal rebates (€ billions [% of gross])	–	–	–	–	–	1.4 (6)	2.6 (12)	1.6 (7)	2.2 (9)	2.2 (9)	2.2 (8)	2.2 (8)	2.5 (8)	3.4 (11)	3.4 (11)
Disputed drugs (% of turnover)[a]	29.8	24.7	22.0	16.7	11.6	8.8	4.3	3.9	3.4	3.2	2.9	2.7	2.7	2.7	2.6
Reference-priced drugs (% of turnover)[a]	–	–	–	54.0	50.0	34.1	35.8	48.2	47.7	45.2	45.0	43.0	37.0	41.0	41.0
Generics (% of turnover)[a]	29.2	32.3	32.3	31.2	31.9	29.9	34.3	34.6	35.9	36.4	36.8	35.9	34.7	35.3	36.7
Generics (% of potential generic turnover)	44.0	47.8	51.2	55.9	63.7	68.2	70.1	68.3	74.0	75.2	76.3	77.9	75.3	72.7	72.7
Patented substances (% of turnover)	–	13.8	20.8	31.6	38.3	44.6	41.8	42.7	43.7	46.0	47.1	46.3	47.7	47.6	44.0
Group C[a,b]	–	7.5	9.8	14.3	16.6	19.3	14.8	14.8	14.1	14.1	13.1	11.5	11.9	11.4	7.5
Group B[a,b]	–	1.6	2.9	5.4	7.9	9.7	10.8	10.4	10.1	10.5	10.7	10.7	10.4	10.7	10.9
Group A[a,b]	–	3.1	5.4	7.6	7.3	8.6	9.3	9.7	10.7	12.2	12.8	14.4	14.0	13.7	15.8

Source: Based on Schwabe & Paffrath, 2013.
Notes: [a]As a share of turnover (SHI expenditure plus rebates and co-payments) in entire SHI market for ready preparations (dispensed by pharmacies), from 2001 with new basket of products; [b]Classification of original drugs at market launch; Group A: Innovative structure or novel mechanism of action with therapeutic relevance; Group B: Improved pharmacodynamic or pharmacokinetic characteristics with known mechanism of action; Group C: Analogous agent with no or only marginal differences to approved agents ("me-too"); Group D: Unclear mechanism of action or unclear therapeutic benefit (not listed separately in data source).

Use of OTC drugs at the expense of the SHI decreased from 426 million prescriptions in 1992 to 72 million prescriptions in 2004; turnover decreased from €4.4 billion to €0.7 billion. The sudden decrease of 64% in prescriptions from 2003 (197 million prescriptions) to 2004 (72 million prescriptions) and of 67% in turnover to €705 million was the result of the SHI Modernization Act, which excluded – with certain exceptions – OTC medication from SHI refunding. This corresponded to a €1.1 billion saving for the SHI. Those savings were higher than predicted because physicians prescribed "disputed drugs" less than expected.

Data also revealed an increasing readiness among physicians to prescribe generics, amounting to 86.2% of all potential generic prescriptions in 2010 (Table 5.6), one of the highest shares among EU and OECD countries (data for 2012, OECD, 2013a). Although generic prescription as a share of the total market also increased during this period, it did not do so to the same extent because the share of patented pharmaceuticals increased disproportionately. After the expiration of patent protection, the market share of original products, however, decreased (Table 5.6).

The results outlined here on changes in prescription of disputed drugs and generics suggest that these developments should be interpreted in the context of regional spending caps, especially since these trends slowed down after the spending caps were abolished in 2001. In 2004, the regulations of the SHI Modernization Act, as mentioned above, then caused a sharp 7.2 percentage points decrease of the disputed drugs share. Physicians used savings gained by modified prescription behaviour to replace drug therapies by patented therapies, being truly innovative substances (group A), therapeutically relevant (group B) or "me-too" preparations with no or little additional therapeutic value (group C). In the early 2000s, approximately 50% of expenditure for patented drugs could be attributed to the last of these three groups (Table 5.6). Yet, the shift from non-patented towards patented substances came at the price of rising drug expenditure. Between 1992 and 2003, the value per prescription doubled to €32 and increased again in 2012 to €48.05.

The turnover from patented drugs increased disproportionately, whereas the turnover from drugs whose patent had expired decreased. At the same time, the turnover from generic drugs rose only minimally, influenced by increased competition among manufacturers of generics and the impact of cost-containing measures in this area. It remains to be seen how the measures contained within the Act to Improve Efficiency in Pharmaceutical Care and the Act to Strengthen Competition in SHI will affect prescribing behaviour and turnover in the SHI pharmaceutical market in coming years.

5.7 Rehabilitation

In SHI, medical rehabilitation services belong to the health care services to which the insured are entitled under § 27 SGB V. The objective of rehabilitation measures is to avert, eliminate, alleviate, counterbalance and prevent the worsening of a condition, or to relieve the consequences of disablement or the need for constant care (§ 11 SGB V). If treatment on an ambulatory basis is not sufficient to achieve these goals, the services are provided in an inpatient rehabilitation facility. Insured people are liable to a co-payment of €10 per day to a maximum of 28 calendar days per year (§ 40 SGB V).

In addition to SGB V, SGB IX is applicable, which regulates rehabilitation and the participation of disabled people and which came into force in 2001. SHI (in accordance with §§ 5 and 6 SGB IX) is the payer for medical rehabilitation as well as financial maintenance and other complementary benefits. Medical rehabilitation services incorporate medical treatment by physicians, dentists and, subject to medical prescription, members of other nonmedical professions; the provision of pharmaceuticals, bandages and dressing materials; cures, which include physiotherapy, speech therapy, occupational therapy and psychotherapy; the provision of therapeutic appliances; as well as early support for disabled children or children threatened with disablement (§§ 26 and 30 SGB IX). Financial maintenance and other complementary benefits include cash benefits, such as health allowance, injury allowance, bridging allowance or maintenance allowance (§ 44 SGB IX).

Two steps are necessary to receive rehabilitative services in accordance with the directive issued by the Federal Joint Committee, which came into force on 1 April 2004. With the consent of the patient, the SHI-accredited physician informs the sickness fund by means of a short written form that curative care is not sufficient and that rehabilitation services are indicated. The sickness fund checks whether it is responsible and examines the existing health care entitlements of the insured person concerned and duly informs the SHI physician. In the second step, the SHI-accredited physician prescribes the rehabilitation measure. The rehabilitation prescription, in addition to a social and clinical anamnesis, includes information on the need for rehabilitation, the rehabilitation capacity, the aims of the rehabilitation and the rehabilitation prognosis in respect of the insured person concerned. Following this, the SHI Medical Review Board examines the rehabilitation indication and the rehabilitation prescription. This examination is conducted in accordance with § 275 SGB V.

The responsible sickness fund determines the type, duration, scope, starting date and execution of the provided service (§ 40 SGB V). In this, the sickness fund orientates itself to the Framework Recommendations with respect to the content of a service and to the normally required duration, which are determined by the Federal Rehabilitation Council. In the event that there is no existing benchmark for a particular rehabilitation measure, the provision of ambulatory care must not exceed a duration of 20 treatment days, or three weeks in the case of inpatient care, and may only be repeated every four years (§ 40 SGB V).

The sickness funds may only allow rehabilitation services to be performed at institutions offering rehabilitation services with whom a service provision contract exists in accordance with § 111 SGB V and which can prove (in accordance with § 107 para. 2 SGB V) that they are under constant medical supervision, that they have qualified personnel and that they proceed in accordance with a medical treatment plan. Convalescent care for mothers or fathers together with a child is provided in accordance with § 41 SGB V at an institution belonging to the Convalescent Care Centre for Mothers (*Müttergenesungswerk*).

Table 5.7 contains data on the use of inpatient care in prevention and rehabilitation facilities in Germany since 1991. Between 1991 and 2012, the number of cases increased by 33%, to 24.4 per 1000 inhabitants. During the same period, the number of beds increased by 17%, from 180 to 210 beds per 100 000 inhabitants, while the average length of stay decreased by 18% from 31.0 days to 25.5 days. Correspondingly, the bed occupancy rate fell from 86.9% in 1991 to 80.0% in 2012, further decreasing to 62.3% in 1997.

Table 5.7
Use of inpatient care in prevention and rehabilitation facilities in Germany, 1991–2012

Year	Beds (per 100 000 inhabitants)	Cases (per 100 000 inhabitants)	Average length of stay (days)	Occupancy rate (%)
1991	180	1 842	31.0	86.9
1992	186	1 954	31.0	89.0
1993	192	2 011	30.9	88.8
1994	212	2 167	31.2	87.4
1995	222	2 322	31.0	88.7
1996	232	2 340	30.2	83.2
1997	230	1 920	27.3	62.3
1998	233	2 129	26.4	66.1
1999	231	2 333	26.0	72.1
2000	231	2 490	25.8	76.1
2001	230	2 547	25.5	77.5
2002	224	2 475	25.5	77.3
2003	218	2 302	25.9	75.0
2004	214	2 290	25.1	73.5
2005	212	2 200	25.8	73.4
2006	210	2 230	25.6	74.6
2007	208	2 361	25.5	79.4
2008	208	2 447	25.3	81.3
2009	209	2 449	25.5	81.7
2010	210	2 415	25.4	80.1
2011	213	2 401	25.4	78.7
2012	210	2 443	25.5	81.0

Source: Statistisches Bundesamt, 2013d.

5.8 Long-term care

Long-term care is dominated by statutory long-term care insurance since it was introduced in 1994 (as SGB XI) following a 20-year debate about how to secure financing and access to long-term care in an ageing society with an increasing burden on municipalities to support elderly care. Statutory long-term care insurance typically consists of the mandatory social long-term care insurance and the mandatory private long-term care insurance. Before the introduction of statutory long-term care insurance, there were certain benefits in the SHI package for ambulatory long-term care (these were cancelled after the introduction of the new scheme). However, they were not very generous and the bulk of long-term care services were financed by social welfare, a public assistance. Significantly, these services were not entitlement-based on an

insurance relationship but subject to a means test and, therefore, only paid if the individual or family members could not afford to pay. PHI schemes also offered insufficient nursing benefits.

Starting in 1995, all members of statutory sickness funds (including pensioners and the unemployed) as well as all people with full-cover PHI were declared mandatory members. This was the first introduction of mandatory membership for PHI – making it the first statutory insurance with nearly population-wide membership. In 2013, 69.9 million (87%) were covered by mandatory statutory long-term care insurance and about 9.5 million (11.5%) by mandatory private long-term care insurance (Bundesministerium für Gesundheit, 2013c).

The requirement to pay contributions began in January 1995 with ambulatory benefits available from April of that year. Benefits for care in institutions were available from July 1996. According to the SHI principles, members and their employers jointly contribute 1.95% of monthly gross income: that is, 0.975% each. In order to compensate the employers for the additional costs, a public holiday was turned into a working day. Since 2004, pensioners have to contribute the entire 1.95% from their pension. As a result of the Child Bonus Act (*Kinder-Berücksichtigungsgesetz*), childless SHI members who are 23 years and older pay a 0.25 percentage point increased contribution rate (a total contribution of 2.2%).

5.8.1 Benefits covered by long-term care insurance

In contrast to SHI, benefits in statutory long-term care insurance are only available upon application. The Medical Review Board (operated jointly by sickness funds and long-term care funds) evaluates the applicants and places them into one of the three categories (or denies care). Most of the private health insurers purchase this service from them. Entitlement to insurance benefits is given when care is expected to be necessary for at least six months (hence "long-term" care), while short-term nursing care continues to be funded by the sickness funds, and private insurers if included in the package. Beneficiaries with a care dependency then have a choice of receiving monetary benefits or professional nursing care while staying at home or to receive professional nursing services in nursing homes.

The benefits of long-term care insurance are graded according to type, frequency and duration of the need for nursing care.

Grade I: support is necessary for at least two activities in the areas of body care, eating and mobility (at least once daily) as well as housekeeping (at least several times a week) with an overall average duration of at least 90 minutes daily;

Grade II: support is necessary at least three times daily with an overall average duration of at least three hours daily; and

Grade III: support is necessary around the clock including nights with an overall average duration of at least five hours daily.

Since January 2012, monetary support is intended to cover home care delivered by family members at the following rates: Grade I, €235; Grade II, €440; and Grade III, €700 (plus a professional substitute for up to €1550 a year to cover holidays). In addition, family members serving as caregivers at home can attend training courses free of charge, and short-term care is provided during holidays of caregivers. The caregiver is also covered by statutory accident insurance and statutory retirement insurance, financed by the sickness fund administering the long-term care insurance of the person in need. The limits for professional ambulatory services delivered on an in-kind basis are €450, €1100 and €1500, respectively. For people choosing institutionalized nursing care, benefits are available for day or night clinics as well as for old-age or special nursing care homes. Monthly benefit limits are €1023, €1279 and €1550, respectively. Higher benefits may be granted in exceptional situations. A newer development is the option of personal budgets for recipients of professional ambulatory long-term care. Since July 2004, they may spend their budgetary resources on the provider and service of their choice.

Of the 792 964 new applications received by SHI Medical Review Boards in 2010, 546 352 (68.9%) were granted (Medizinischer Dienst der Krankenversicherung, 2012). Applicants have the right to challenge the decision of their long-term care funds and can take their objection to the social courts.

Altogether, 2.5 million (3.1% of the population) were entitled to benefits from social long-term care insurance in 2011. Entitlement to social long-term care increases with age: of the people entitled to social long-term care, 17% were below 65, 28% between 65 and 79 and 55% above 80 years of age. The "long-term care rate" (i.e. the proportion of people who are entitled to social long-term care in the total population) was 1.1% among those below 60 years, 9.8% among those aged 75–79 years and 57.8% among those over 90 years. A total of 1.76 million people (70%) received home care and approximately 0.74 million (30%) stayed in nursing homes (see Table 5.8) (Statistisches Bundesamt, 2013f).

Table 5.8
Recipients and providers of long-term care, 2011

	Home care by relatives	Home care supplied by ambulatory care services:	Inpatient care in nursing homes	People in need of care, total
Total	1 180 000 (47%)	576 000 (23%)	743 000 (30%)	2 500 000
Recipients of long-term care (No. (% according to grade), maximum benefits in €)				
Grade I	762 000 (65%), €235	324 000 (56%), €450	283 000 (38%), €1 023	1 370 000 (55%)
Grade II	330 000 (28%), €440	189 000 (33%), €1 100	299 000 (40%), €1 279	818 000 (33%)
Grade III	90 000 (7%), €700	63 000 (11%), €1 550	152 000 (22%), €1 550	305 000 (12%)
Providers of long-term care				
Number and ownership		12 349 ambulatory care services (63% private, 36% non-profit, 1% public)	12 354 nursing homes (40% private, 54% non-profit, 6% public)	
Employees		290 700 (73% part-time, 88% female)	661 200 (68% part-time, 85% female)	
People in need of care per provider (by ownership)[a]		47 (36/65/53)	64 (55/69/75)	

Source: Based on data in Statistisches Bundesamt, 2013f.
Notes: [a]Number before the parentheses represents the average across the three types of provider, taking the different market shares into account; the numbers in parentheses are for private, non-profit-making, and public providers, respectively.

Of the people cared for at home in 2011, classification was 62% as Grade I, 29% as Grade II and 9% as Grade III. Two-thirds, or 1.18 million, received cash benefits only and were cared for by family members. More than 90% of caregivers were women. Recipients of care in nursing homes tended to be older and have more nursing care needs (Table 5.8).

5.8.2 Providers and infrastructure

The introduction of long-term care insurance was also associated with an increase in the number of active nurses and professional caregivers for the elderly, especially in the ambulatory sector. In December 2011, 290 700 employees worked in ambulatory institutions accredited for long-term care and 661 200 employees worked in accredited nursing homes. The number of part-time workers in ambulatory institutions was higher than in nursing homes (Table 5.8) (Statistisches Bundesamt, 2013f).

Similar to other social care sectors, SGB XI applies the principle of subsidiarity to long-term care, implying that private organizations have priority over public institutions to deliver care. However, private for-profit providers

are explicitly given the same status, rights and duties as non-profit providers in statutory long-term-care insurance – one of several measures intended to increase competition among providers.

Although the share of privately owned nursing homes has increased at the expense of public providers since 1995, non-profit welfare organizations dominate inpatient long-term care services. Of the ambulatory institutions accredited for long-term care in 2011, 63% were owned by private for-profit organizations, 36% by non-profit providers and 1% by public providers. Private institutions each cared for an average of 36 people requiring nursing care and supervision, non-profit institutions for an average of 65 and public institutions for an average of 53 people (Statistisches Bundesamt, 2013f).

Between 1996 and 2011, the number of care places in nursing homes increased from 421 to 1080 per 100 000 population, a total of 875 549 places. Of the nursing homes accredited for inpatient long-term care (and day hospital care) in December 2011, 54% were in non-profit, 40% in private for-profit and 6% in public ownership. The last were mostly in municipal ownership. The non-profit homes managed an average of 69 long-term care patients, private homes an average of 55, and public homes an average of 75 (Statistisches Bundesamt, 2013f).

5.8.3 Planning and payment

The duty to guarantee access to professional ambulatory long-term care has been legally entrusted to long-term care funds that are responsible for administering the statutory long-term care scheme (so-called long-term care funds), while the *Länder* secure access to institutionalized care.

In the case of long-term care, the principle of "dual financing" means that investment expenditure for institutional long-term care is to be financed by the *Länder*, while recurrent costs are financed by social or private long-term insurers (see section 3.6.1). In contrast to SHI (where ambulatory private providers depreciate their investments via recurrent costs), the *Länder* may also finance investments for long-term care in the ambulatory sector (see section 3.6.2).

Professional long-term care in the ambulatory sector is paid on a fee-for-service basis while institutionalized care is based on per diem charges. The prices are negotiated at *Länder* level between long-term care funds and associations of providers delivering nursing care.

5.8.4 Expenditure

Table 5.9 shows the allocation of resources within statutory long-term care insurance between 1997 and 2012. In 2012, 23% of expenditure was spent on cash benefits, and 4% for contributions to the retirement and accident insurance of family members providing long-term care. The share of expenditure for non-cash benefits was 65% (46% for inpatient care, 14% for ambulatory professional care, 3% for outpatient or short-term care and 2% for nursing aids) as well as 5% for administration and the SHI Medical Review Board. Between 1997 and 2008, absolute values of the expenses for cash benefits remained constant (i.e. decreased relatively) while the share of non-cash benefits increased. In 2009, 2010 and 2012, expenditure for cash benefits increased slightly. This increase can be explained with the introduction in 2008 of long-term care class "Grade 0", according to which patients with dementia are also entitled to benefits, a group that had previously been excluded from these benefits (see section 6.1.7).

Table 5.9

Expenditure and revenues of statutory long-term care insurance in 1997–2012

Indicator	1997	1999	2001	2003	2005	2006	2007	2008	2009	2010	2011	2012
Total expenditure on benefits (€ billion)	14.3	15.6	16.0	16.6	17.0	17.1	17.5	18.2	19.3	20.4	20.9	21.9
Cash benefits	4.3	4.2	4.1	4.1	4.1	4.0	4.0	4.2	4.5	4.7	4.7	5.1
Social insurance contributions for caregivers	1.2	1.1	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Professional care during holidays of caregivers	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5
Short-term care	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4
Day/night care	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3
Nursing aids and support technologies	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4
Ambulatory care benefits in-kind	1.8	2.1	2.3	2.4	2.4	2.4	2.5	2.6	2.8	2.9	3.0	3.1
Nursing care in homes	6.4	7.2	7.8	8.2	8.5	8.7	8.8	9.1	9.3	9.6	9.7	10.0
Nursing care in homes for disabled	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
Expenditure of medical review board (50%)[a]	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Administration	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.8
Total expenditure	**15.1**	**16.4**	**16.9**	**17.6**	**17.9**	**18.0**	**18.3**	**19.1**	**20.3**	**21.5**	**21.9**	**22.9**
Total revenues	**15.9**	**16.3**	**16.8**	**16.9**	**17.5**	**18.5**	**18.0**	**19.8**	**21.3**	**21.8**	**22.2**	**23.0**
Balance[b]	+0.8	0.0	−0.1	−0.7	−0.4	+0.5	0.3	+0.7	+1.0	+0.3	+0.3	+0.1

Source: Bundesministerium für Gesundheit, 2013c.
Notes: [a]The other 50% of medical review board costs are paid from SHI contributions; [b]Statutory reserves not included.

The income of the long-term care funds exceeded their expenditure during their first three years, mainly because funding began earlier than benefit provision. Since 1999, expenditure increasingly exceeded revenues (Table 5.9). In 2005, the federal government responded with an increase in the contribution rate for insured childless people by 0.25% and by another 0.25% increase for all insured in 2008.

The introduction of statutory long-term care insurance led to a substantial reduction of the municipal burden of costs for long-term care. Nevertheless, social welfare benefits continue to be needed to support the elderly in nursing homes, primarily to fund accommodation costs that are not covered by statutory long-term care insurance.

5.9 Social care

Social care is delivered by a broad variety of mainly private organizations that complement family and lay support for the elderly, children with special needs, mentally ill and the physically or mentally handicapped. The *Länder* are responsible for planning (and guaranteeing the provision of) institutionalized care and schools for children with special needs. Most providers of institutional care belong to the six members of the Federal Alliance of Voluntary Welfare Organizations (see section 2.3.5). Welfare organizations have established more than 100 000 autonomous institutions with about 3.7 million beds and 1.5 million employees (2008). The largest area of operation of the Federal Alliance of Voluntary Welfare Organizations in terms of the number of institutions, beds and places is youth welfare, followed by geriatric care and assistance for the disabled. Looking at the number of employees, geriatric care has the largest share (26%). Health assistance (24%) takes second place, followed by youth and children's welfare (21%), assistance for the disabled (19%), assistance for families (4%), assistance for people in special social situations (2%), institutions for education, training and further training (1%) and other assistance (3%) (Bundesarbeitsgemeinschaft der Freien Wohlfahrtspflege, 2009a). Other typical features of social care in Germany are:

- a nearly universal mandatory social insurance for long-term care administered by sickness funds and private health insurers;
- a legal right for children with social problems to access personal and family support services;
- special schools for children with severe learning deficits and behavioural disorders;

- a legal quota for employment of the disabled;
- an SGB, enforced in 2002, strengthening the individual and collective rights of the disabled and clarifying the responsibilities, interrelations and cooperation of the various payers and providers;
- a traditional priority of welfare organizations over for-profit providers, except for the long-term care sector where non-profit and for-profit providers have equal status in order to enhance competition;
- increasing access to integrated schooling and community-based services, although with substantial geographic differences among *Länder* and between urban and rural areas; and
- traditionally, a strong focus of specialized, comprehensive care for the severely handicapped in institutions separate from the community.

Social care for physically and/or mentally disabled (6.9 million people in 2007, 8% of the population) is characterized by well-equipped and highly specialized institutions and schools. Although these comprehensive services are increasingly offered within communities on an outpatient basis, institutionalized care still plays a major role, particularly for severely disabled people with multiple handicaps. In 2008, the Federal Alliance of Voluntary Welfare Organizations for example, provided 15 365 institutions for physically and mentally disabled people (Bundesarbeitsgemeinschaft der Freien Wohlfahrtspflege, 2009b).

As with services for the mentally ill, there is a broad variety of private organizations and local community initiatives offering support for the handicapped and their families. Yet because of unclear financial responsibilities, those affected do not have a concrete right to specific community-integrated service, including preschools and schools. This again leads to great regional differences and underprovision in rural areas.

The reform of SGB IX on rehabilitation and participation of disabled people in 2001 increased the individual and collective rights of the disabled. A Federal Commissioner for the Concerns of Disabled People (*Beauftragter der Bundesregierung für die Belange behinderter Menschen*) has been created by the federal government and is based at the Federal Ministry of Health. Personal budgets have been introduced and coordination centres provide information to the insured, simplify administrative procedures and coordinate the many actors involved in financing medical, professional and social rehabilitation as well as disability benefits.

5.10 Palliative care

The report "Law and Ethics of Modern Medicine" by the Bundestags-Enquete-Kommission stated in 2004 that between 25% and 30% of dying people died at home, about 43% in acute hospitals, about 15% to 25% in homes, about 1% in inpatient hospices, and 3% to 7% in other places. About 3.6% of those dying at home were supported by ambulatory hospice structures, mainly by volunteers. Altogether, about 4–5% of dying people were supported by some form of hospice care and about 2% by some form of specialized palliative care, while about 10% of all dying people had been estimated to require specialized palliative services (Jaspers & Schindler, 2005).

Most dying patients are cared for by regular health care providers, and their care is financed as part of general health care or long-term care arrangements. Systematic training in palliative medicine is only a relatively recent development in Germany. For many years, palliative medicine played an insignificant role in medical schools and was not an examination subject (Müller-Busch, 2008). Since 1995, physicians can acquire a qualification in pain treatment in addition to their specialization. Since 2003, an additional qualification in palliative care can be obtained. While palliative care was recognized as an optional subject for examination at medical schools in 2003, it has been mandatory in nurse training since 2003. In 2009, the Federal Assembly (*Bundestag*) made palliative medicine a required part of the medical school curriculum and an examination subject.

There is a structural, regulatory and financial division between hospice services and specialized palliative care services. Palliative care units at hospitals focus on specialized pain treatment, which is delivered by employed hospital physicians, financed by state investments and via DRGs and subject to general hospital regulations (see section 3.6.1). In contrast, inpatient hospice care focuses on end-of-life nursing care and psychosocial care and is delivered by employed nurses with the support of volunteers. Medical care is provided by ambulatory physicians (family physicians or specialists) and is financed by general ambulatory SHI budgets (see section 3.6.2).

Inpatient palliative care structures have expanded considerably since the mid-1990s. Between 1996 and 2011, the number of palliative care units in hospitals increased from 28 to 231, and the number of inpatient hospice care facilities rose from approximately 30 to 179. In 2009, the number of palliative care beds was 17 per million population and the number of hospice beds 18 per million. The need was estimated to be higher, namely 25–30 beds per million for each (Deutsche Gesellschaft für Palliativmedizin, 2011).

Ambulatory hospice and palliative care was provided by about 1450 services in 2008. The structures, funding and quality regulations differ by state and level of service. Although data differ substantially, the majority of ambulatory services are ambulatory hospice groups, where trained volunteers provide psychosocial support to patients and their families and perform public relations activities. Since 2002, sickness funds have been required to provide financial grants to the more professionalized ambulatory hospice services that provide advice on palliative nursing to family members through qualified personnel and secure the recruitment, training, coordination and support of volunteers who provide psychosocial support to the dying and their families. The total funding available was €0.15 per insured in 2002 increasing to €0.40 in 2007. Despite additional agreements at the *Länder* level, the SHI funding actually used amounted to only 56.6% of total possible funding in 2002 and 65.2% in 2004 (Jaspers & Schindler, 2005).

The 2007 Act to Strengthen Competition in SHI entitles SHI insured to ambulatory specialized palliative nursing care and medical treatment. About 330 teams of physicians and nurses specializing in palliative care would be required to take care of patients with severe incurable diseases and palliate severe symptoms. Services should be provided at home as well as in nursing homes and hospices. The details of the requirements for referring patients to specialized palliative care are defined by the Federal Joint Committee in a directive. The extent, content and quality of services should be refined as part of the negotiations between the Federal Association of Sickness Funds and the Federal Association of SHI Physicians. The improvement of ambulatory specialized palliative care is expected to cost about €230 million: €100 million for the 330 specialized care teams; €110 million for improved care with pharmaceuticals, medical aids and allied health personnel services; and €20 million for optimizing family physician care. It is expected that the quality of life of the dying and family members will increase, and the number of hospital admissions and average length of hospital stay will decrease.

5.11 Mental health care

Since a parliamentary committee report in 1975 criticized the institutionalization and low quality of care for long-term mental illness, mental health care in the western regions of Germany has shifted gradually to offering community-integrated services. The situation of mental health care in the eastern regions in 1990 was similar to conditions in the western part before the psychiatric reforms in the 1970s. A considerable share of mental health services was provided by

big institutions with 300 to 1800 beds, often with care of relatively low quality. The shortage of community-based facilities was exacerbated by a general insufficiency in staffing numbers. Around 60% of inpatients were judged as not needing hospital care in 1990.

During the process of "dehospitalization", the number of hospitals providing care only for patients with psychiatric and/or neurological illness was decreased substantially until the end of the 1990s. Acute psychiatric inpatient care was shifted to a large degree to psychiatric wards in general (acute) hospitals. Whereas the number of psychiatric beds in West Germany totalled some 150 000 in 1976, this had been reduced to 69 000 by 1995 and to 40 165 by 2009 in reunified Germany. During the same period, the duration of stay in hospitals with departments for psychiatry, psychotherapy and/or neurology decreased from an average of 152 days in 1976 (West Germany) to 44 days in 1995 and 25 days in 2007 (reunified Germany). In 2009, 409 hospitals (out of a total of 2084) had a department for psychiatric and psychotherapeutic care (Statistisches Bundesamt, 2013c).

The process of dehospitalization was accompanied by an increase in the number of community-based institutions, particularly supervised residential arrangements, ambulatory crisis intervention centres and centres for psychosocial counselling and social support. These are frequently run on a non-profit basis. At the same time, there was an increase in the number of hospitals (and beds) dedicated to prevention and rehabilitation care that were outside the state hospital requirement plans. Often owned by private for-profit providers, these institutions specialized particularly in the care for patients with addiction problems and psychosomatic disturbances.

Ambulatory care for the mentally ill (adults and children) is supported by the increasing number of private-practice psychiatrists, neurologists and psychotherapists working in the ambulatory care sector (see section 5.3). Since 2000, ambulatory psychiatrists have been made coordinators of a new set of benefits called sociotherapeutic care that are intended to encourage chronically mentally ill people to utilize necessary care and to avoid unnecessary hospitalizations. Additionally, public health offices provide sociopsychiatric services including counselling, social work, home visits and crisis intervention, directed particularly at the most disadvantaged among the mentally ill.

Ambulatory care for individuals suffering from mental disorders continues to be strengthened through psychiatric outpatient departments (*Psychiatrische Institutsambulanzen*). These are based at psychiatric hospitals that have been authorized by the Accreditation Committee to provide outpatient psychiatric

and psychotherapeutic care for insured individuals. Pursuant to § 118 SGB V, this treatment is designed for insured individuals who, because of the nature, severity or duration of the disease or the distance to suitable physicians, depend on being provided with treatment by these hospitals.

A clear indicator for the supply situation with outpatient psychotherapy is the waiting time for a therapy place with a resident psychotherapist. According to a study from 2010, this waiting period is approximately 80 days. In this context, the anticipated lack of supply is greater in rural areas (104 day waiting period in small towns) than in metropolitan areas (Walendzik et al., 2010).

The quantity, comprehensiveness and quality of ambulatory services vary largely between different local communities and different *Länder*. Despite advances, psychosocial facilities are often less well equipped than institutions for somatic care (e.g. access to telephones); access to occupational rehabilitation and comprehensive social integration is still considered insufficiently developed.

5.12 Dental care

The basic entitlements of SHI-covered people to dental care are defined in § 28 of SGB V. The insured are entitled to the prevention, the early detection and the treatment of diseases of the teeth, the mouth and the jaw. Therefore, prophylactic treatments and basic dental care are covered by the sickness funds. While benefits for ambulatory physician services are legally defined in generic terms only, legislation has regulated issues of dental care much more specifically.

In 2004, the newly established Federal Joint Committee replaced the Federal Committee of Dentists and Sickness Funds and since then has been responsible for regulating dental care. In 2012, six directives existed to ensure a sufficient, appropriate and cost-effective provision of dental care. They define, for example, measures for orthodontic treatments, dentures and fixed grants.

The directives consist of a general part that explains their aim, their users and names the corresponding paragraph in SGB V. After the initial section, the directives become more detailed. For example, the directive for dental prosthesis provision describes at first the general requirements for a dental benefit. Thereafter the basic principles and requirements for a prosthetic benefit are described. The last section defines the requirements for specific prosthetic treatments (crowns, bridges, removable prosthetics, combination of prosthetics, implantable prosthetics).

While the directives broadly define when the patient is entitled to a benefit, they do not define the benefits package explicitly. Therefore the Valuation Committee defines the Uniform Value Scale for Dentists, which lists services that are reimbursed by the sickness funds and thus explicitly defines the SHI benefits package (see section 3.6.2). The services of dental technicians are listed in a similar framework, the Uniform Value Scale for Dental Technicians (BEL II).

5.13 Complementary and alternative medicine

Population surveys on the use of complementary and alternative medicine practitioners do not allow trends to be easily summarized. In 2002, the Robert Koch Institute published a special report on the use of alternative methods in medicine as part of their health monitoring. According to this, naturopathy, phytotherapy, homeopathy, acupuncture, autogenic training and chiropractic are the most commonly used therapies in Germany (Robert Koch-Institut, 2002).

According to a survey in 2002, 73% of all Germans over the age of 16 years indicated that they had used a natural remedy prior to that time, including 34% within "the past three months" (Institut für Demoskopie Allensbach, 2002). The results of a more recent survey show that the percentage of the population that used natural remedies was 67% in 2007. The share of women who used a natural remedy (75%) was considerably higher than the share of men who had done so (57%) (Piel, 2007).

Complementary and alternative medicine is generally not included in the SHI benefits package. From 2006, the Federal Joint Committee has recognized only acupuncture as a reimbursable treatment method for patients with chronic pain of the knee joint (gonarthrosis) and the lumbar spine. In addition to obtaining extra qualifications in acupuncture, physicians who provide acupuncture treatment must also furnish proof of knowledge in the areas of psychosomatic basic care and pain treatment in order to bill the sickness funds for their services.

The number of physicians who use complementary and alternative medicine in their everyday practice has increased considerably since the mid-1990s. According to data from the Federal Statistical Office and the Federal Chamber of Physicians, the number of physicians with additional qualifications in acupuncture increased fivefold between 2005 (2113) and 2009 (11 848) (Table 5.10). As shown in Table 5.10, physicians who have an additional

qualification in alternative medicine work predominantly in ambulatory care. The significant increase in physicians using complementary and alternative medicine as well as medical practitioners suggests that the use of the services has also strongly increased. However, there are no reliable data that could confirm this trend.

Table 5.10

Physicians with additional qualification in alternative examination and treatment methods, 2006–2011[a]

	2006	2007	2008	2009	2010	2011	Growth rate 2006–11 (%)
Acupuncture							
Total	4 701	8 117	10 947	11 848	12 489	13 245	181.7
Ambulatory care	4 044 (86.0%)	7 143 (88.0%)	9 578 (87.5%)	10 276 (86.7%)	10 675 (85.5%)	11 169 (84.3%)	
Inpatient	406 (8.6%)	548 (6.7%)	782 (8.5%)	904 (7.6%)	1 007 (8.1%)	1 110 (8.4%)	
Homeopathy							
Total	6 073	6 268	6 586	6 712	6 809	6 933	14.2
Ambulatory care	4 661 (76.7%)	4 785 (76.3%)	4 958 (75.2%)	5 028 (74.9%)	5 070 (74.5%)	5 143 (74.2%)	
Inpatient	414 (6.8%)	432 (6.9%)	484 (7.3%)	490 (7.3%)	502 (7.4%)	502 (7.3%)	
Chirotherapy							
Total	17 591	18 160	18 863	19 161	19 409	19 575	11.3
Ambulatory care	11 501 (65.3%)	11 894 (65.4%)	12 227 (64.8%)	12 470 (65.0%)	12 636 (65.1%)	12 662 (64.7%)	
Inpatient	3 676 (20.9%)	3 656 (20.1%)	3 759 (19.9%)	3 704 (19.3%)	3 619 (18.7%)	3 557 (18.2%)	
Naturopathic treatment							
Total	14 497	14 889	15 296	15 554	15 744	15 949	10.0
Ambulatory care	10 488 (72.3%)	10 762 (72.3%)	10 985 (71.8%)	11 158 (71.7%)	11 218 (71.3%)	11 288 (70.8%)	
Inpatient	1 545 (10.6%)	1 542 (10.3%)	1 544 (10.1%)	1 550 (9.9%)	1 545 (9.8%)	1 565 (9.8%)	

Source: Statistisches Bundesamt, 2014a.
Note: [a]Difference between inpatient and ambulatory care results from other activities.

6. Principal health reforms

6.1 Analysis of recent reforms

Since the late 1980s, Germany has seen many legal interventions in health care. A narrative overview of health reforms in the context of the German reunification is given in section 2.2. The following sections give a more detailed account of the political objectives and contents of health care reform acts since 2004. Reforms between 1989 and 2003 are described in detail in the two HiTs on Germany published in 2000 (Busse, 2000) and 2004 (Busse & Riesberg, 2004). Section 6.2 discusses reforms planned for the near future.

Both the Social Democratic/Green Coalition Government (1998–2004) and the grand coalition of Christian Democrats and Social Democrats (2005–2009) adhered to the basic SHI structures and the corporatist mode of regulating the health care sector. They partly delegated more competencies to self-government. Both governments promoted competition among sickness funds and intervened increasingly to improve the quality of health care and to innovate its structural division in delivery, administration and financing. Yet, if health care policy was summarized for the period from 2000 to 2009, cost-containment and the concept of a sustainable financing system have been the major objectives. Major political intervention in health care occurred primarily when the SHI had financial deficits. The subsequent of Christian Democrat/Liberal Democrat Coalition Government (2009–2013) also pursued the goal of consolidating SHI financing while at the same time limiting expenditure, particularly for pharmaceuticals. The government in 2014, again a grand coalition of Christian Democrats and Social Democrats, has agreed on strengthening the focus on quality, especially in hospitals.

Table 6.1 shows important health care reforms between 1988 and 2013 in chronological order. However, it is important to note that, in addition to these health care reforms prepared by the Federal Ministry of Health, numerous acts affected health care.

Table 6.1

Chronology of major health reform acts, 1988–2013

Year passed	Legislation	German name
1988	Health Care Reform Act of 1989	*Gesundheitsreformgesetz*
1992	Health Care Structure Act of 1993	*Gesundheitsstrukturgesetz*
1994	Social Code Book XI (Statutory Long-Term Care Insurance)	*Sozialgesetzbuch XI, Soziale Pflegeversicherung*
1996	SHI Contribution Rate Exoneration Act	*Krankenversicherungsbeitragsentlastungsgesetz*
1997	1st and 2nd SHI Restructuring Acts	*1. und 2. GKV-Neuordnungsgesetz*
1998	Act to Strengthen Solidarity in SHI	*Gesetz zur Rechtsangleichung in der GKV*
1999	SHI Reform Act of 2000	*GKV-Änderungsgesetz*
	Act to Equalize Statutory Provisions in SHI 2001	*Gesetz zur Rechtsangleichung in der GKV*
2000	Infection Protection Act	*Infektionsschutzgesetz*
2001	Social Code Book IX (Rehabilitation and Participation of Disabled People)	*Sozialgesetzbuch IX, Rehabilitation und Teilhabe behinderter Menschen*
	Reference Price Adjustment Act	*Festbetragsanpassungsgesetz*
	Pharmaceutical Budget Redemption Act	*Arzneimittelbudgetablösungsgesetz*
	Act to Reform the Risk Structure Compensation Scheme in SHI	*Gesetz zur Reform des Risikostrukturausgleichs in der GKV*
	Act to Newly Regulate Choice of Sickness Funds	*Gesetz zur Neuregelung der Krankenkassenwahlrechte*
2002	Pharmaceutical Expenditure Limitation Act	*Arzneimittelausgaben-Begrenzungsgesetz*
	Case Fees Act	*Fallpauschalengesetz*
	Contribution Rate Stabilization Act	*Beitragssatzsicherungsgesetz*
	Long-term Care Quality Assurance Act	*Pflege-Qualitätssicherungsgesetz*
2003	12th Social Code Book V Amendment Act	*12. Sozialgesetzbuch-V-Änderungsgesetz*
	1st Case Fees Amendment Act	*1. Fallpauschalen-Änderungsgesetz*
	SHI Modernization Act	*GKV-Modernisierungsgesetz*
2004	Act to Adjust the Financing of Dentures	*Gesetz zur Anpassung der Finanzierung von Zahnersatz*
	Second Case Fees Amendment Act	*2. Fallpauschalen-Änderungsgesetz*
	Child Bonus Act	*Kinder-Berücksichtigungsgesetz*
2006	Act to Improve Efficiency in Pharmaceutical Care	*Gesetz zur Verbesserung der Wirtschaftlichkeit in der Arzneimittelversorgung*
	Act to Amend SHI Physicians' Law	*Gesetz zur Reform des Vertragsarztrechtes und anderer Gesetze*
2007	Act to Strengthen Competition in SHI	*GKV-Wettbewerbstärkungsgesetz*
2008	Long-Term Care Improvement Act	*Pflege-Weiterentwicklungsgesetz*
	Act to Improve Organization Structures in SHI	*Gesetz zur Weiterentwicklung der Organisationsstrukturen in der GKV*
2009	Hospital Financing Reform Act	*Krankenhausfinanzierungsreformgesetz*
	Amendment of pharmaceuticals regulations and further regulations	*Änderung arzneimittelrechtlicher und anderer Vorschriften*
2010	SHI Reform Act	*GKV-Änderungsgesetz*
	SHI Financing Act	*GKV-Finanzierungsgesetz*
	Pharmaceutical Market Reform Act	*Arzneimittelmarktneuordnungsgesetz*
2011	SHI Care Structures Act	*GKV-Versorgungsstrukturgesetz*
2012	Long-term Care Realignment Act	*Pflege-Neuausrichtungsgesetz*
2013	Patients Rights Act	*Patientenrechtegesetz*

6.1.1 The SHI Modernization Act of 2004

The passage of the SHI Modernization Act at the end of 2003 ended a one-year decision-making process and – temporarily – a five-year polarization of the two biggest political parties, the Social Democratic Party and the Christian Democratic Party, over health policy. There was a general feeling that reform was needed, most of all because of increasing SHI contribution rates (on average from 13.5% of gross wages in 2001 to 14.3% in 2003) and perceived deficiencies in the quality of health care. The Act was a result of a compromise between the incumbent Social Democratic/Green Coalition Government and the Christian Democratic opposition, which held a majority in the Federal Council (*Bundesrat*).

The stated objectives of the Act were to improve the efficiency and quality of health care and to stabilize SHI contribution rates in order to avoid disincentives for employers to invest in job-creating activities. The legislation was supposed to generate substantial savings for the SHI system, which had costs that were calculated to increase from an expected €9.8 billion in 2004 (about 7% of the likely expenditure of the sickness funds) to €23 billion by 2007. In 2004, the bulk of expected savings (4% of current SHI expenditure) were to be achieved by shifting costs to users and SHI members. In comparison, the anticipated savings from measures targeting health care providers and the pharmaceutical industry totalled an estimated €1.5 billion in 2004, to rise progressively to €3 billion in 2007.

The main elements to achieve the savings or costs shifts were as follows:

Exclusion from the SHI benefit catalogue. Some benefits, especially OTC drugs, glasses, and some types of patient transport, were excluded from the SHI benefit catalogue.

Redesign of co-payments. The co-payment requirements were restructured by three measures: introducing new co-payments, standardizing co-payment levels across sectors, and revising exemption rules. (1) Co-payments were newly introduced for physician contacts in ambulatory care, namely €10 per quarter for the first contact at a physician's and a dentist's office and each contact with other physicians without referral during the same quarter. (2) Cost-sharing became 10%, with a minimum of €5 and a maximum of €10 per good or service, which is generally higher than previously. (3) While children under age 18, antenatal care and preventive services were still exempt from co-payments, the general exemption of poor people was abolished. Annual co-payments were now limited for every SHI insured to 2% of annual gross household income

at the (documented) request of the insured; for the chronically ill, the annual financial burden of co-payments was limited to 1%. Deductions for spouses and children apply.

Shifting the contribution rate towards the insured. The original intention of the SHI Modernization Act was to exclude dentures from the SHI benefit basket financed by employers and employees equally and instead introduce statutory supplementary insurance financed entirely by employees (reform see below). SHI members were to be able to choose between private supplementary insurance with a premium set by the insurer and supplementary insurance with the statutory funds, financed by a community-rated premium with free insurance of family members and retention of the principle of benefits in-kind (e.g. payment through the regional associations of SHI dentists and authorization of the treatment plan in advance by the SHI Medical Review Board). As it was seen in the course of 2004 that the proposed per capita-financed supplementary insurance for dentures resulted in disproportionately high administrative costs and was shown to be unfair, the Act to Adjust the Financing of Dentures (*Gesetz zur Anpassung der Finanzierung von Zahnersatz*) was passed by the Federal Assembly (*Bundestag*) with the votes of the ruling Social Democratic/Green Coalition Government (October 2004). The Act abolished the provisions on private or SHI-based supplementary insurance and instead imposed a special contribution of a comparable amount on employees alone; with effect from 1 July 2005 this was a total of 0.4% of contribution rate applicable to their gross pay. At the same time, the further special contribution, originally planned for 2006 in the SHI Modernization Act, also became due as of July 2005; this meant an increase in the contribution rate by a total of 0.9% for employees alone. At the same time, the general contribution rate was reduced by the same amount by law, with employers benefiting from a reduction by 0.45% and employees also by 0.45%. Therefore, all in all, equal sharing of financing (50:50), which had existed for many years, was shifted to employers bearing 46% and employees about 54%.

Additional revenues. In addition, the Act opened up new sources of revenue for SHI by making non-statutory pensions subject to contributions and transferring financing of family-policy services not related to insurance, such as in vitro fertilization, to the federal budget. This was achieved through tax subsidies to sickness funds, so the benefits themselves remained in the SHI basket.

Beyond these highly publicized cost-shifting measures, the SHI Modernization Act included an array of less publicly discussed organizational reforms to increase the quality of care, efficient coordination and patient

participation. Particularly for the pharmaceutical sector, the Act introduced an array of different cost-containment measures and substantial structural changes, including:

- co-payment increases and revision of the exemption rules (discussed above);
- exclusion of OTC medications from SHI reimbursement, except for certain named drugs;
- reintroduction of reference prices for patented drugs with no or little additional therapeutic benefits (as determined by the Federal Joint Committee on the basis of the evaluation by the Institute for Quality and Efficiency in Health Care);
- increase of rebates (from 6% to 16% for the year 2004) that manufacturers have to grant for patented drugs dispensed to SHI-covered outpatients as long as these are not included in the reference-price scheme;
- liberalization of price setting for OTC medications (leaving fixed prices on prescription drugs);
- introduction of e-commerce;
- the possibility for pharmacists to operate three branches of their main pharmacy within a reasonable distance; and
- change of the pharmacists' surcharge from degressive percentage margins to a fixed dispensing fee of €8.10 (€8.35 since 2013) per pack of prescription-only drugs.

To improve the coordination of decision-making across sectors, the Federal Joint Committee was introduced, taking over functions of the Federal Committee of Physicians and Sickness Funds, the Federal Committee of Dentists and Sickness Funds, the Committee for Hospital Care and the Coordinating Committee (see section 2.5.3). The Federal Joint Committee was also delegated tasks of the multi-stakeholder body for quality assurance to integrate quality measures into administrative decisions and to better link them to incentives and sanctions. The Federal Joint Committee was accompanied by the equally newly founded Institute for Quality and Efficiency in Health Care, which evaluates benefit and risk (but in contrast to previous plans, not cost–effectiveness) of drugs and other interventions, supports the Committee in other aspects of its work and provides evidence-based patient information.

Another aspect of the Act was strengthening the individual and collective rights of patients by introducing a Federal Commissioner for the Concerns of Patients and giving accredited organizations representing the rights of the chronically ill a seat in the joint self-governing structures, most visibly in the Federal Joint Committee, where nine non-voting delegates have the right to participate in consultations and propose issues.

Various measures of the Act aimed to diversify ambulatory care models via the introduction of a right to establish multidisciplinary ambulatory medical treatment centres. Under the regulation of regional associations of SHI physicians, and competing with physicians' practices, these treatment centres can offer services in family medicine, specialist ambulatory care and integrated care. Previously, only a few such centres existed in Berlin and Brandenburg as successors of the East German polyclinics (see section 2.2).

All sickness funds were required to offer "family practitioner models" to better coordinate services and could include various forms of gate-keeping. Members may, but are not required to, participate.

Integrated care – offered by providers of different sectors under a single contract with a sickness fund – became easier and more attractive. This was financed, from 2004 to 2008, by subtracting 1% of the funds available for ambulatory physician and hospital care. In contrast to the government's original plans, selective contracting does not apply to all ambulatory specialist physicians, but only to participants of integrated care contracts (see section 5.4.3).

In 2005, smaller regional associations of SHI physicians were reorganized into larger units and, more importantly, all of them were required to employ full-time managers instead of the boards of practising physicians (for sickness funds, this form of professionalization had been mandatory since 1993). The government's original plan to reorganize the payers' side was withdrawn during the course of negotiations to avoid destabilization of the institutional framework while funds were charged with increased tasks to intervene in provision and coordinate care.

A large number of the Act's paragraphs implemented EU directives or jurisdiction, for example the EU health smart card, the financing of on-call shifts as working time in hospitals and information duties with regard to the geographical origin of dentures. Following the decision of the European Court of Justice (2003), any insured person may now be reimbursed for ambulatory care received in any EU country even if pre-authorization is not sought or if the provider is not contracted by the respective health service or health insurance.

To avoid discrimination against people seeking care in Germany, these rules now also apply to all insured (not only the voluntarily insured) within the country. However, the Act provides several precautions; for example sickness funds may apply deductions for administration or shortfalls in co-payments and efficiency controls before reimbursing their insured. The Act also opens the way for single sickness funds to contract selectively with providers in other EU Member States within the legal framework for SHI on integrated care.

6.1.2 The road to the 2007 health care reform

Even though there was agreement on the need for further health care reforms, there were considerable political differences as to the form they should take, with the result that reforms either did not come about at all or were not sufficiently far reaching (see section 6.1.3), in contrast, for example, to those to reform the labour market, the so-called Hartz Acts.

In particular, there was consensus that the revenue side of the individual branches of the social security system was in need of fundamental reform. At the end of 2002, the Federal Chancellor at the time, Gerhard Schröder, set up a commission made up of experts as well as representatives of employers, trade unions and other lobbies to develop proposals for sustainable financing of the social security systems. As far as SHI was concerned, the commission headed by Bert Rürup and named after him was unable to agree on one proposal and thus presented two models in its final report in August 2003.

The first model of the Rürup Commission ("per capita premium" model) contained the following elements:

- financing of the SHI by a community-rated per capita premium (approx. €200 per month), independent of income, for all adults, but free for children;
- payment of the present employer contribution to employees and pensioners as gross pay upon which tax is payable, irrespective of the nature of their health insurance; and
- support out of taxation for people on low incomes for the purpose of financing the per capita premium.

The other model, known as "citizens' insurance" (*Bürgerversicherung*), aimed at broadening the contribution base by:

- extending the obligation to have SHI to other, previously exempted sections of the population;

- abolishing the upper wage threshold beyond which employees can opt out of the SHI system;
- increasing the SHI contribution limit – maximum earnings on which SHI contributions are payable – by approximately one-third, up to that of the statutory retirement insurance; and
- extending the obligation to pay contributions on other forms of income (e.g. rental income and interest).

Ultimately, the actual redistribution effect in both models depended on the extent of the subsidies paid out of taxation and the definition of the maximums upon which statutory contributions were payable. To go by the original calculations of the Rürup Commission, it was estimated that so-called citizens' insurance would benefit households with incomes between €10 000 and €40 000 whereas the per capita premium model would benefit households with incomes between €40 000 and €100 000. Those with higher incomes would not benefit as tax increases would be necessary.

One of the issues on which the two major political parties contested the 2005 Federal Assembly (*Bundestag*) election was that of the seemingly contradictory strategies to reform the health care system. The Christian Democratic Union rejected the original idea of a SHI system financed entirely by per capita premiums (similar to the Swiss model) and instead introduced the proposal of mixed financing made up of income-dependent contributions, per capita premiums and taxes. The differentiation between SHI and PHI was to remain in force. In contrast, the Social Democratic Party – just like the Greens and what was then the Party of Democratic Socialism (PDS) – called for expansion of SHI to create general citizens' insurance. This was to be financed by extending the statutory obligation to pay contributions on other forms of income.

After the two parties more or less won the same number of votes in the federal election (each obtaining slightly more than one-third of votes cast), they formed a grand coalition, with the Ministry of Health led by a member of the Social Democratic Party. In November 2005, the coalition agreement between the parties set out the need to reform the health insurance system. Although the content was not yet clear, there was agreement that health care reform was indispensable given the background of demographic change, progress in medicine and medical technology and the inefficient use of resources. Following a lengthy preparation period (mostly behind closed doors) and a number of night sessions attended by Federal Chancellor Angela Merkel and the leaders of the individual parties, an agreement was eventually reached at the

beginning of 2007 on a uniform SHI contribution rate to be set by the federal government, the introduction of the Central Reallocation Pool and a morbidity-based risk-adjustment scheme, structural changes within joint self-government and a general obligation to have health insurance with ensuing changes in the PHI system. The reform is set out in detail in section 6.1.4.

6.1.3 Failed and minor reforms between 2005 and 2008

During this time (i.e. in the last year of the Social Democratic/Green Coalition Government and the first years of the grand coalition), in addition to the question of the "grand reform", the political agenda contained the following issues: (1) prevention, (2) long-term care, (3) risk structure compensation scheme, (4) pharmaceuticals and (5) greater flexibility in the services of SHI physicians.

1. The Prevention Act passed by the Federal Assembly (*Bundestag*) in April 2005 was rejected by the Federal Council (*Bundesrat*) in May 2005 on the grounds that the proposed Federal Foundation (*Bundesstiftung*) would be excessively bureaucratic. It had been intended to condense existing legislation on prevention, set out "who is responsible for what", lower legal barriers and achieve better coordination of the activities of the actors. The provisions were to be set out in a separate SGB for Prevention, similar to SGB V for the SHI or SGB IX for Rehabilitation and Integration of Disabled Persons. The draft legislation envisaged responsibility of the sickness funds, pension funds and accident funds for financing of population-related preventive measures. Its primary focus was on person-based services designed to change individual lifestyle habits and took settings approaches into consideration. The draft gave rise to controversy, in particular among the social security providers, who feared a shifting of financial responsibility and interference on the part of the federal government and regional governments on the way the money of the insured was used. In total, one-fifth of the prevention resources were to be spent on nationwide prevention campaigns and administered by the Federal Foundation that would be set up.
2. On the subject of reform of long-term care insurance, the Federal Constitutional Court had ruled as far back as 2001 that members with children were to pay lower contributions than those without. Two commissions of experts also studied further questions of reforming long-term care insurance in mid-2003. The Rürup Commission set up by the federal government proposed increasing the contributions paid by pensioners. In contrast, the Herzog Commission set up by the opposition at the time proposed increasing the employers' contribution while at the same time providing relief for employers by abolishing a public holiday.

Apart from this, the recommendations of both commissions were similar: long-term care insurance as a form of social security, financed by the contributions of employers and employees, was to be retained. The benefits were to remain limited to a defined range with the financial ceilings for ambulatory and inpatient treatment to be adjusted to one another. Benefits and payments were to be index linked both to inflation and payroll costs. Dementia was to have equal recognition as a criterion for the need for care, requiring a widening of the somatic definition of the need for care and of specific care benefits. In order to satisfy the requirements of the Federal Constitutional Court, the Federal Assembly (*Bundestag*) passed the Child Bonus Act at the end of 2004; this meant an increase in the contribution payable for long-term care insurance by 0.25 percentage points for childless SHI members. A more comprehensive reform of long-term care insurance (Long-Term Care Improvement Act) did not take place until 2008. Changes included an increase in the contribution rate by 0.25% to 1.95% of gross pay (as of 1 July 2008, accompanied by a decrease in unemployment insurance contributions from 4.2% to 3.3%). A particular aspect of the Long-Term Care Improvement Act was ensuring the quality of care by introducing what are known as care standards and regular quality inspections of both ambulatory and inpatient care facilities on the basis of uniform quality criteria, and the publication of results. Furthermore, the value of benefits that had been frozen since the introduction of long-term care insurance was increased. However, widening of the categories of beneficiaries to include dementia sufferers, also called for by experts, did not take place.

3. The Federal Assembly (*Bundestag*) also asked the federal and regional governments to review the risk structure compensation scheme and develop concepts for organizational reform on the part of the sickness funds. Here proposals were also to be taken into consideration that had initially been rejected in the course of the deliberation process on the SHI Modernization Act, namely encouraging mergers between the multitude of funds, making leaving an association for a specific type of fund and joining a different one possible and prohibiting the formation of new sickness funds until 2007 (i.e. until the originally envisaged implementation of a morbidity-based risk-adjustment scheme).
4. The Act to Improve Efficiency in Pharmaceutical Care, which became law on 1 May 2006, brought in a number of changes for the insured, physicians, sickness funds and pharmaceutical companies. The co-payments for pharmaceuticals that cost a maximum of 70% of the reference price in question no longer applied. What is known as a bonus–malus rule was

also introduced: this was to impose sanctions on physicians prescribing pharmaceuticals that were uneconomical and in return to reward physicians whose prescription policy particularly took economy into consideration. The plan was that costs below the average costs per DDD would result in a bonus for the regional association of SHI physicians in question; this bonus would then be distributed among those physicians whose prescription policy had taken that aspect of economy into consideration. After the provision was initially applied in the case of seven substance groups, its application was discontinued as of 2008 (and with the 2011 Pharmaceutical Market Reform Act also officially set aside) as it transpired that it was not compatible with a further instrument that had recently been introduced. The Act to Improve Efficiency in Pharmaceutical Care had amended the possibility that had theoretically already existed, namely rebate contracts between sickness funds and pharmaceutical manufacturers, to the effect that pharmacists were now required to dispense the relevant preparation; this gave the instrument "clout" and gave rise to a correspondingly large number of contracts. However, since then, the prices actually paid by the funds have no longer been known in detail (see section 5.6.3). Apart from this, a price moratorium limited to two years was also introduced for pharmaceuticals prescribed which were to be paid for out of SHI (up to and including March 2008).

5. A number of restrictions on the services provided by SHI physicians were set aside with effect from 1 January 2007. Since then physicians have been allowed to (a) operate branch practices at other locations, (b) practise as employees (something that had previously only been possible at multidisciplinary ambulatory health care centres), (c) work part-time or in the ambulatory and inpatient sectors and (d) set up joint practices beyond local boundaries and specializations. The expiry of SHI accreditation for physicians over the age of 68 was also abolished in areas where physicians were in short supply.

6.1.4 The 2007 Act to Strengthen Competition in SHI

Although the Act to Strengthen Competition in SHI was unanimously rejected by nearly all lobbies, it passed through the final stage of the parliamentary process, the Federal Council (*Bundesrat*), on 16 February 2007. In principle it became law on 1 April 2007, although a number of changes did not take effect until January 2009 and others not until 2011.

While the two major health care reforms of the recent past (the Health Care Structure Act of 1992 and the SHI Modernization Act of 2003) primarily concentrated on steps to reduce costs within SHI, the main focus of the Act to Strengthen Competition in SHI was focused on decreasing the revenue base of the sickness funds. As already described, the Social Democratic Party and the Christian Democratic Union/Christian Social Union had very different views on future financial structures in the health sector and for this reason neither the community-rated per capita premium nor the citizens' insurance model was able to gain a majority in the grand coalition. Therefore, the introduction of the Central Reallocation Pool can be seen as a compromise on the part of the governing coalition. The Act to Strengthen Competition in SHI had the following features.

- *Introduction of the Central Reallocation Pool*. The Central Reallocation Pool was the core of the 2007 health care reform. Financing through this Pool was, on the one hand, designed to create more transparency and greater competition between the sickness funds and, on the other hand, bring about a reduction in the much-criticized administrative costs. Its fundamental objective was to disconnect the income-dependent health insurance contributions from the risk-adjusted allocations to the funds.
- *Standardization of the contribution rate*. The individual sickness funds have not been able to set their own contributions since January 2009. A specified percentage of income subject to contributions applies for all those with SHI and is transferred to the Central Reallocation Pool directly. Under the Act to Strengthen Competition in SHI, the contribution rate was set by the federal government and was calculated to ensure that the Central Reallocation Pool could cover at least 95% of all SHI expenditure. In the event that the funds were not able to cover their expenditure out of allocations from the Pool (see section 3.3.3), they were required to impose a supplementary premium (expressed in euros per member) or contribution rate (expressed in percentage of contributory income) on their members, which could amount to a maximum of 1% of income up to the contribution limit. However, this hardship clause was criticized by experts as it posed new financing problems for funds that insured large numbers of people with low incomes.
- *Adjustment and development of the risk structure compensation scheme*. The introduction of the Central Reallocation Pool also had an impact on large parts of the way the risk structure compensation scheme worked. Since then, the risk structure compensation scheme has "merely" been needed to adjust differences of need, while differences in the incomes

of the insured are taken into account by the Pool. In contrast to the previous risk structure compensation scheme, the morbidity-orientated risk structure compensation scheme takes 80 serious, chronic and cost-intensive diseases into consideration when funds are allocated (see section 3.3.3), in addition to sociodemographic factors. Instead of a purely cell-based approach that allocates each insured person to a group arising from the average expenditure of the group (as until 2008), the morbidity-based risk structure compensation scheme is designed as a combined cell and surcharge model to which any number of prospective morbidity surcharges can be added to the age- and gender-specific allocation. "Prospective" means that the relevant factors (i.e. the existence of a disease) must be visible from the sickness fund data prior to the beginning of the year in question. In return, both the separate cells for participants in DMPs and the high-cost compensation no longer applied (see section 3.3.3). The purpose of introducing the morbidity-based risk-adjustment scheme was to reduce further the incentive for the funds to select risks and to promote competition among the sickness funds on the basis of good health care services and quality for patients with chronic conditions.

- *Introduction of a universal insurance obligation*. The demand for a universal insurance obligation with a view to establishing comprehensive insurance coverage was also a key issue in the political debate. While statistics put the percentage of the population without health insurance at well under 1%, their number had steadily increased in the first years of the 21st century (see section 3.3.1). While the coalition agreed that the problem existed, there were initially differences on proposals as to how it was to be solved. However, an exclusive right to health insurance proved to be inadequate, particularly as the private insurers feared that certain categories of people would exploit this. This means that since 2007 people without health insurance who were last insured under the SHI system were obliged to become a member of a sickness fund. People who were not eligible for membership of a sickness fund have been required to take out PHI since January 2009. However, this does not create a uniform insurance system as proposed by the Social Democratic Party among others, as the option of full coverage insurance in a PHI fund remains.
- *Introduction of a "basic tariff" in PHI.* The obligation to have insurance also brought about significant changes for private health insurers. As of 2009, they have been obliged to offer a basic tariff that is comparable with the services offered in the SHI and does not contain any risk

surcharges or exclude any services or benefits. The introduction of the basic tariff is particularly intended for people who are excluded from SHI and whose individual risk would result in high and unaffordable premiums (see section 3.3.1). Those representing the interests of private health insurers feared the introduction of the basic tariff would lead to increases in premiums of up to 50% for existing customers and predicted the "end" of PHI (Schölkopf, 2009) – a prediction that quickly proved to be scaremongering. At the end of 2010, just 21 000 of the 8.9 million with full PHI cover (0.25%) were insured under the basic tariff.

- *Changing to PHI.* A further change of relevance for PHI concerned the upper wage threshold beyond which employees can opt out of the SHI system. To ensure the workability of the solidarity principle in the SHI, the legislature made it more difficult for employees to change from SHI to PHI. From 2009 on, employees were no longer able to change from SHI to PHI as of the end of the calendar year in which their income for the year exceeded the opt-out threshold. Employees could only opt for a change if their income also exceeded the threshold in three consecutive years – a regulation that was abolished as of 2011 under the SHI Financing Act (see section 3.3.1; Schölkopf, 2009).
- *Transferability of active life reserves in PHI.* As a further change in the law, as of 2009 people with PHI could take their old-age reserves with them up to the amount of the basic tariff when transferring to another private health insurer. The aim of widening the possibilities for the privately insured to change to a different insurer was to strengthen competition among private insurers. However, there was criticism from several quarters that, although it was now possible to transfer reserves formed for old age in the amount of the scope of benefits under the basic tariff, individual reserves for old age were disregarded (Schölkopf, 2009).

Apart from structuring the revenue side in the SHI and the new regulations applicable in PHI, the 2007 Health Care Reform Act brought a number of structural changes in the associations and institutions of joint self-government. The seven individual associations of sickness funds were abolished and replaced by the Federal Association of Sickness Funds, with its members being the individual sickness funds (see section 2.3.3). In order to streamline the procedures of the Federal Joint Committee, the individual decision-making bodies were merged in 2009 to form a single decision-making body and the number of its members reduced. In addition, the three neutral members became salaried.

The 1992 Health Care Structure Act had introduced the right to choose a sickness fund and the risk structure compensation scheme, paving the way for more competition in the SHI. The Act to Strengthen Competition in SHI advanced this approach and gave the Act its name. The miners' sickness fund (into which the sailors' sickness fund merged in 2008) was opened up to all SHI members and thus only the funds for those employed in the agricultural sector and a few BKKs were still exempted from the competition model. Mergers of different kinds of fund have also been possible since 1 April 2007, and indeed take place (see section 2.3.3).

The Act to Strengthen Competition in SHI also improved competition among individual funds by giving them the possibility of offering a range of tariff options. By this means, insured people can opt to pay lower contributions or be eligible for additional services and benefits. Existing options include, for example, sick pay for people in self-employment or the principle of reimbursement of costs. As since 2009 the individual funds have no longer been able to set themselves apart from each other via the contribution rate, as it was then uniform, the right to choose an individual rate serves as a means of competition, although there is a statutory commitment period prohibiting an insured person from changing to another fund for a three-year period if such a tariff option is chosen.

In contrast to the 2004 SHI Modernization Act, the Act to Strengthen Competition in SHI did not strike anything from the benefit basket; on the contrary immunizations (previously officially benefits set in the statutes of the individual sickness funds) and specialist ambulatory palliative care were included in the statutory benefit basket for the first time.

The changes in the contractual relations between sickness funds and service providers are also far reaching. For example, there have been substantial changes in remuneration paid to SHI physicians. With effect from 2009, the reform shifted the morbidity risk from the SHI physicians to the sickness funds. The previous form of budgeting, which had linked overall remuneration to the increase in the total wage base, was changed in that total remuneration now increased in line with the services and benefits for the insured (officially with morbidity). Since January 2009, physicians have received fixed remunerations per service on the basis of what is known as a Euro Value Scale (see section 3.6.2).

The Act to Strengthen Competition in SHI increased the possibility of concluding selective contracts between sickness funds and those who deliver services. This particularly applies to the areas of GP-centred and specialized ambulatory care (see section 3.3.4), where sickness funds can conclude contracts

with individual physicians. The possibility of individual contracts in the area of the provision of medical aids was also improved by permitting sickness funds to invite tenders for provision of medical aids – in the meantime, the "should" in the Act to Strengthen Competition in SHI was changed to "can" by the Act to Improve Organization Structures in SHI with effect from 2009.

A further aspect of the Act to Strengthen Competition in SHI, which gained substantial international attention, was the extension of pharmaceuticals evaluation to include cost–benefit aspects (instead of the benefit aspect only). This regulation was particularly intended for preparations that, in comparison with previous treatment, have a proven additional benefit and thus are not included in the reference-price regulation. For these preparations, the Act to Strengthen Competition in SHI introduced the option to set a reimbursement limit that was to serve as a ceiling for reimbursement by the sickness funds (a regulation that the Pharmaceutical Market Reform Act replaced by the negotiated reimbursement amount prior to setting even a single reimbursement limit). The Institute for Quality and Efficiency in Health Care developed a methodology to establish the efficiency tipping point at which an acceptable cost–benefit ratio for a new preparation can be derived from one already on the market.

The Act to Strengthen Competition in SHI was not only the subject of political debate, there was also wide discussion among the general public. While the reform's advocates saw it as the "grand design", its opponents considered it to be a "step towards state medicine" (Orlowski & Wasem, 2007). Both opinions can be seen as being exaggerated. While the reforms undertaken were intended to address the central issue of the way the health service was to be financed in the future, a comprehensive solution was still lacking.

6.1.5 The 2011 health care reform

Even though the Act to Strengthen Competition in SHI took steps to reform the health care system both in the short and the longer term, a fundamental decision as to how SHI was to be financed had not been made. This meant that the new Central Reallocation Pool could be developed either towards the concept of solidarity-based citizens' insurance or in the direction of a per capita premium principle.

The coalition of the Christian Democratic Union/Christian Social Union and the Free Democratic Party that was in power between 2009 and 2013 made plain the direction that financing of the SHI would take during its administration in its coalition agreement. Plans to introduce community-rated per capita

premiums, which had not been realized by the preceding grand coalition, were revived in the 2009 coalition agreement. In the agreement, the government described competition among the sickness funds and the health insurers as a "structuring principle" designed to counteract the "road to a single fund and a state-run, central health service". With the aim of largely separating health care costs from labour costs, in order to make them independent of variations in the economy and more resistant to demographic change, the SHI financing model was, in the long term, to be changed from the current system of shared contributions to employee-only contributions that were not based on income (i.e. premiums). The role played by PHI was to be further strengthened (coalition agreement between the Christian Democratic Union, Christian Social Union and Free Democratic Party, 2009).

In July 2010, the government announced its plan to reform SHI (calling its programme "for a just, social, stable, competitive and transparent health service"), a reform that was enacted into law in autumn 2010 by the SHI Financing Act. Although fundamental changes were made to SHI financing, conversion to a new model of financing SHI by a per capita premium did not come about. This was not least because of resistance from the Christian Social Union, which, unlike the other parties in government, saw the introduction of a per capita premium as "unsocial". Along with the parties in opposition, large sections of the population also saw income-independent SHI financing as being a step towards more inequality in provision of health care. As far as SHI financing was concerned, the reform envisaged the following changes.

- *Setting the contribution rate*. The uniform contribution rate would no longer be set annually by the federal government but was set by law as 15.5% in SGB-V. The employee share would be 8.2% and the employer share 7.3%. This "frozen" contribution rate would apply independently of future increases in health service costs (i.e. the revenues of the Central Reallocation Pool would no longer link to (anticipated) expenditure) and the 95% regulation (see above) no longer applied. Future cost increases that exceed increases in income subject to contributions can then only be covered by supplementary premiums, which the majority of the sickness funds would impose in the medium term.
- *New regulations for the supplementary premium*. If it became necessary for the funds to impose a supplementary premium, this would take the form of an income-independent, per capita premium. The amount of the supplementary premium would be set by the sickness funds individually, thereby further strengthening competition between the individual funds. The ability for the funds to impose supplementary

premiums or contributions had existed since the introduction of the Central Reallocation Pool in 2009. The new element here was that the supplementary premium was no longer limited to 1% of the income of a member who is subject to contributions.

- *Introduction of social adjustment*. In order to protect members on lower incomes from excessive financial burdens, social adjustment would take place on the basis of the average supplementary premium. The Federal Insurance Authority would calculate the average supplementary premium for the following year by estimating the coverage shortfall between the financial requirement of the sickness funds and income from contributions and taxes (of the Central Reallocation Pool) and apportion this to the number of members in the year in question. If the average supplementary premium (i.e. not the actual) exceeds 2% of a member's income on which contributions are payable, the difference would be evened out by deducting the amount from the income-dependent contributions. The social adjustment would be paid for out of taxes that are paid into the Central Reallocation Pool as a federal subsidy. The governing parties saw this as creating greater fairness in financing as all taxpayers (including those insured privately) contribute to financing the less well off.

As the Act to Strengthen Competition in SHI, this reform also had features designed to strengthen competition between the individual funds. The income-independent supplementary premium was seen as a strong competition instrument that would lead to a move by those insured by funds with low financial resources and relatively higher supplementary premiums to funds with greater financial resources. Further measures under the SHI Financing Act intended to enhance competition include binding period for rates and strengthening of PHI.

- *Binding period for chosen rates*. The funds have had the possibility of offering their customers tariff options since 2007. In order to further strengthen competition among the funds, the SHI Financing Act reduced the minimum time for which an insured person was bound to the co-insurance chosen from what had been three years to one year. With the exception of the "sick pay" option, a special right of termination also became possible for the first time if the supplementary premium was raised by the fund in question and if a bonus previously paid was reduced.
- *Strengthening PHI*. Furthermore, the SHI Financing Act strengthened the role of PHI by relaxing the prerequisites for changing from SHI to PHI. As of 31 December 2010, PHI is again possible at the end of each year

in which the income of the person in question exceeds the upper wage threshold beyond which employees can opt out of the SHI system, and not only after three consecutive years.

The 2011 health care reform also contained extensive measures in the pharmaceuticals sector. The SHI Reform Act that entered into force on 1 August 2010 and the Pharmaceutical Market Reform Act, which has applied since 1 January 2011, provided both for savings over a defined limited period (until the end of 2013) and longer-lasting structural changes. The government hoped that the two regulations would result in cost savings in SHI of a total of €2.2 billion (Bundesministerium für Gesundheit, 2010c).

The SHI Reform Act obliged pharmaceutical manufacturers to give a discount of 16% (previously 6%) on all drugs that were not subject to a reference price between August 2010 and the end of 2013 (7% since April 2014). Prices were frozen at the level applicable on 1 August 2009 until the end of 2013 (meanwhile prolonged).

The Pharmaceutical Market Reform Act regulated the reimbursement of new pharmaceutical products; since then, the additional benefit above that of existing comparable treatment is the decisive factor for reimbursement. Thus, the Act has also substantially changed the pricing of pharmaceuticals with new active substances.

Previously, manufacturers were allowed to set the price of new, innovative pharmaceuticals themselves. The government saw this as being a primary reason for the increase in the cost of pharmaceuticals. Under the Pharmaceutical Market Reform Act, pharmaceutical companies can still market drugs containing new active substances at a price they set in the first year the drug in question is on the market. However, the pharmaceutical companies are obliged to submit a dossier with evidence of the additional benefit of the drug to the Federal Joint Committee when the product is launched. The Federal Joint Committee has to initiate an analysis of the benefit on the basis of the dossier submitted without delay; for this it can engage the Institute for Quality and Efficiency in Health Care or a third-party organization.

The Federal Joint Committee decides whether, and to what extent, a new pharmaceutical product has an additional benefit. Products that do not have any additional benefit are allocated to an existing reference-price group. This means that reimbursement is limited to the price of comparable products. Should this not be possible as not enough other products providing comparable pharmacological treatment exist, the manufacturer is required to agree a

reimbursement price with the SHI that does not result in costs higher than those of comparable treatment. Regarding the pharmaceuticals with additional benefit, the Federal Association of Sickness Funds in consultation with the Association of Private Health Insurance Companies negotiates a reimbursement amount on the basis of the decision of the Federal Joint Committee on evaluation of benefit with effect for all sickness funds.

In the event that the two sides are not able to agree on a reimbursement amount within six months of announcement of the decision on the additional benefit, an arbitration body is called in to set the price within a three-month period, basing its decision, for example, on comparable international prices. The reimbursement amount set in the arbitration ruling will apply retroactively as of the 13th month after the product in question went on the market. The government hopes that these mandatory price negotiations will lead to annual savings of around €2 billion (Bundesministerium für Gesundheit, 2010c).

6.1.6 The SHI Care Structures Act

Following the SHI Financing Act and the Pharmaceutical Market Reform Act, the coalition of the Christian Democratic Union/Christian Social Union and Free Democratic Party passed the third major piece of legislation in December 2011. The SHI Care Structures Act consists of a number of measures with the common objective of improving provision of services nationwide. Structural changes particularly relate to ambulatory SHI care and were intended to counteract the problem of under- and oversupply.

Needs-based planning. The Federal Joint Committee had to establish new physician–patient ratios taking regional demographic factors and morbidity into consideration. Apart from this, planning areas in ambulatory care no longer had to coincide with administrative districts. Along with greater possibilities for the self-governing partners to intervene, the *Länder* authorities also had a consultation right in needs-based planning.

Structure fund. The regional associations of SHI physicians were given structure funds that was financed from 0.1% of the overall remuneration in question and by the same percentage from the sickness funds. The fund was designed to encourage physicians to practise in undersupplied areas.

Remuneration system for SHI physicians. Physicians' remuneration was to be more performance orientated and to take regional factors into consideration. The measures were particularly aimed at physicians working in structurally

weak areas; quantity limitations for physicians were lifted (e.g. regarding their practice-based volume of standard services) in the case of undersupply and they could receive surcharges for special services.

Replacement proceedings. In order to contain oversupply in certain regions, the Accreditation Committee enhanced options regarding replacement proceedings. If a practice is closed, the physician would receive compensation from his association corresponding to the market value of the practice. Replacement proceedings in "barred" areas would also cover practice as a SHI physician in an undersupplied area for at least five years along with existing aspects such as professional qualifications, age at the time of licensing to practise medicine and years of practice as a physician taken into consideration. A further instrument to contain oversupply was allowing permission to practise in areas where supply exceeds 100% for a limited period and which, after it expires, does not of necessity lead to replacement proceedings.

A further change in the law in the ambulatory sector concerns the introduction of highly specialized medical care provided by specialists in outpatient care. This includes treatment of diseases with severe progressive forms (e.g. HIV/AIDS, multiple sclerosis, cancers) or rare diseases (e.g. tuberculosis, cystic fibrosis, Wilson disease) as well as highly specialized procedures (e.g. computed tomography/MRI-aided interventional pain therapy). The Federal Joint Committee defined details of this and the qualifications requirements at the end of 2012. Highly specialized medical ambulatory care would be billed on the basis of a new chapter in the Uniform Value Scale, either to the sickness funds directly or, in the case of practice-based physicians, to the relevant regional association of SHI physicians. The morbidity-based overall remuneration would be adjusted for these fee portions.

The SHI Care Structures Act also provides for structural changes in the provision of dental care. The previous link of dentists' fees to the total wage base (with the exception of dentures) was set aside as of January 2012. As in the case of SHI physicians, overall remuneration would be more closely linked to the morbidity-dependent treatment need of patients. With the aim of creating conditions allowing sickness funds to compete on equal terms, a uniform points system for remuneration of dental services will be introduced for all funds.

The Act contains a further important reform regarding treatment involving off-label use. Patients with a life-threatening disease for which no recognized form of treatment exists can now receive treatment not recognized for the disease in question even if the likelihood of a cure or prospects of slowing down the progress of the disease are only very minimal. This measure is closely

linked to a further provision according to which new non-medicinal methods of treatment to be reviewed by the Federal Joint Committee in future in terms of their benefits may not be denied to patients during the review period. However, the main focus of this change is to create evidence so that a decision can be taken on whether to include the treatment in the benefit basket. So far, methods used to prove benefit have only been applied to pharmaceuticals and not to new test and treatment methods.

6.1.7 Long-term care and patient rights

In January 2012, the federal government tabled a bill to reform long-term care insurance (Long-term Care Realignment Act (*Pflege-Neuausrichtungsgesetz*)) which came into force in 2013. Given the growing number of people in need of long-term care, the focus of the reform was on the need to consolidate long-term care insurance and to redefine what constitutes need for such care in order to reflect the growing number of patients with dementia. The key elements of the Act are:

- improving services and benefits for patients suffering from dementia who are not adequately taken into consideration by the present strong emphasis on the aspects of hygiene, nutrition and housekeeping only;
- making use of services and benefits more flexible by offering options in the structure and composition of services and benefits provided;
- strengthening the principle of "rehabilitation before care" that had come into force in 2008, according to which the long-term care funds establish whether there are suitable and acceptable forms of treatment in medical rehabilitation that can prevent, reduce or dispense the need for care;
- supporting family members providing care, for example by (a) making use of prevention and rehabilitation measures at facilities that provide carers with support, (b) continued payment of up to 50% of care payments if short-term care or care by a substitute is provided, and (c) strengthening self-help;
- establishing new residential and care forms to strengthen the priority given to ambulatory services and benefits;
- improving medical care by means of cooperation agreements between residential care homes and physicians; and
- accelerated and transparent review proceedings for decisions on whether a need for care exists.

The reform also includes measures to consolidate the financing of statutory long-term care. The Act increased the contribution rate by 0.1 percentage points as of 1 January 2013 in order to ensure financing. Apart from this, private insurance provisions are given more importance. Adults who are insured in the statutory or private long-term care insurance and still do not receive care benefits may receive a tax-funded subsidy if they purchase private supplementary long-term care insurance. The subsidy amounts to €60 per year regardless of the income of the insured person.

There were also major endeavours to reform patient rights. Up to 2013, patient rights were set out in various statute books, directives and special regulations (see section 2.9.3). The federal government and the commissioner for the concerns of patients submitted a joint strategy paper setting out the key points for a general law on patient rights in March 2011, which was to serve as the basis for a subsequent bill. Measures designed to strengthen patient rights include:

- incorporation of the treatment agreement into the Civil Code as well as a statutory duty to provide information and documentation;
- enhancement of an error prevention culture by (a) strengthening the risk management and error reporting systems in ambulatory and inpatient care and (b) improving complaints management in hospitals;
- codification of a comprehensive liability system;
- strengthening procedural rights in the case of suspected errors in treatment by means of (a) uniform mediation proceedings and (b) specialized chambers at the regional courts;
- strengthening rights in relations with service providers by (a) supporting sickness and long-term care funds if they are sued for damages by one of their members for errors in treatment, (b) implementing the entitlement to care management during the transition from inpatient to ambulatory care, (c) extending existing information rights of the insured in the case of participation in DMPs and selective contracts, (d) accelerating approval proceedings on the part of the sickness funds and the authorization proceedings on the part of the social security carriers, and (e) strengthening the rights of those in need of long-term care;
- strengthening patient involvement; and
- providing patients with information on their rights through independent patient advice organizations and the Federal Commissioner for the Concerns of Patients.

6.2 Future developments

Since the elections in September 2013, the government is again a grand coalition of Christian and Social Democrats with Hermann Gröhe as the Federal Minister of Health. The 2013 coalition agreement plans no substantial changes in SHI financing. Instead, it includes proposals for various measures with a focus on the promotion of quality. The coalition plans to strengthen quality by law as an additional criterion for decisions on hospital planning and payment. Therefore, a new institute for quality is to be established that will be allowed to collect and analyse administrative data and to publish advice. As a financial incentive, quality-related payment will get higher priority in hospitals (or, as many would say, will be introduced). Plans foresee, for example, that hospitals providing high-quality services could be excluded from the 25% payment reduction for increases in revenue budgets. Conversely, it may be made possible that below-average quality for individual services lead to a higher reduction of payment.

The measures introduced by the SHI Care Structures Act in 2011 to strengthen ambulatory care in rural areas and to reduce the oversupply by buying up physician practices are to be continued and intensified by the current government. Waiting times for an appointment with a psychotherapist or specialist should be shortened significantly for SHI-covered patients. For better coordination, the regional associations of SHI physicians will implement appointment-service centres. Another focus is the promotion and development of innovative cross-sectoral forms of care, which will be supported financially with a total of €300 million.

Although the coalition has not announced a substantial remodelling of SHI financing structures, a draft bill was passed in April 2014 containing significant changes in the way contribution rates are determined and contributions are shared between employers and employees. As a reminder: from 1955 until 2005 each sickness fund set the contribution rate individually and the payment was equally shared between employers and employees; a special contribution rate of 0.9% – only to be paid by the insured – was introduced in 2005 by law. Since 2009 – with the introduction of the Central Reallocation Pool – there has been a uniform contribution rate, first set by the government and since 2011 set by law. In addition, sickness funds have been allowed to collect a community-rated premium (or bonus) if there is financial imbalance (Table 6.2; see also section 3.3.2). According to the new bill, the legally set general contribution rate is kept but the equally legally set special contribution rate for employees only is to be abolished – as are the supplementary premiums/bonuses expressed in euros per member (and necessary specific social protection mechanisms). The

latter two will be replaced by a supplementary income-dependent contribution rate, which can be determined by each sickness fund individually. This is, on the one hand, a return to the pre-2009 situation because insurants will be faced with differing contribution rates but, on the other hand, the post-2009 situation for employers is kept as they contribute only one-half of the uniformly set general contribution rate (i.e. 7.3% of the 14.6%) and are thus spared from future cost increases.

Table 6.2
Development of contribution rate determination and contribution sharing

	General contribution rate, split 50:50 between employers and insured		Special contribution rate for insured only, set by law	Supplementary contribution rate/premium for insured only, set by each sickness fund	
	Mechanism	**Rate**		**Mechanism**	**Social protection**
Until 30 June 2005	Set by each sickness fund	Varying (see section 3.3.2)	–	–	–
1 July 2005 to 31 December 2008	Set by each sickness fund	Varying (see section 3.3.2)	0.9%	–	–
1 January to 30 June 2009	Set by government	Uniformly 14.6%	0.9%	Community-rated premium/bonus or percentage rate	If over €8/month, maximum 1% of gross income
1 July 2009 to 31 December 2010	Set by government	Uniformly 14.0%	0.9%	Community-rated premium/bonus or percentage rate	If over €8/month, maximum 1% of gross income
1 January 2011 to 31 December 2014	Set by law	Uniformly 14.6%	0.9%	Community-rated premium/bonus	If average supplementary. premium >2% of gross income, lowered general contribution rate
From 1 January 2015	Set by law	Uniformly 14.6%	–	Percentage rate	–

Overall, it can be stated that the grand coalition proposes a continuation and elaboration of already implemented measures without any substantial changes in the health care structure. However, real innovations are planned with regard to the promotion of new forms of cross-sectoral and integrated care, as well as the prioritization of quality of care.

7. Assessment of the health system

7.1 Stated objectives of the health system

The objectives of the German health care system are defined at federal and state level and are also based on Europe-wide and international values and objectives. According to the aims of the German SHI system defined in SGB-V, the task of health insurance is "to maintain, restore or improve health…" (§ 1), to which end "care is to be provided that reflects needs, is uniform and in keeping with the generally recognized state of medical knowledge" (§ 70). This care must take solidarity ("solidarity community") and co-responsibility of the insured (§ 1) into consideration in equal measures. These aims are supplemented by the principle of cost efficiency (§ 12), according to which services and benefits must be "adequate, appropriate and economical" and may "not exceed the measure of what is necessary" (§ 12 and similarly § 70, which also calls for "necessary professional quality" and "humane treatment of patients").

The *gesundheitsziele.de* forum, a process that was begun in 2000 as an initiative of the federal government and the federated *Länder*, developed seven national health targets. The aim of the initiative was establishing a joint targets strategy, something which is indispensable in the case of a decentralized and pluralistic health system such as the German one, to enable it to face new challenges and health risks by offering coordinated strategies.

The following national targets were set: (1) diabetes mellitus type 2: lowering the risk of contracting the disease, early recognition and treatment of the disease; (2) breast cancer: decreasing mortality rate, improving quality of life; (3) tobacco consumption reduction; (4) growing up healthy: life skills, exercise, diet; (5) increasing health skills and strengthening patient sovereignty; (6) depressive diseases: prevention, early recognition and long-term treatment; and (7) health in old age.

Programmes for health targets are also developed by the federated *Länder*. Now all *Länder* pursue health targets specific to the individual state or priority fields of activity that are indicative of their health policies. The health target processes in the individual *Länder* differ not only because of the focus of their content but also in terms of their structures and the way they work (Gesellschaft für Versicherungswissenschaft und -gestaltung, 2007).

At EU level, the following goals have been developed by the European Commission: (1) securing access to health care, (2) enhancing the quality of health care, and (3) securing long-term financial viability of health care. In June 2006, the European Council of Health Ministers adopted a statement on "Common values and principles in EU health systems", listing the overarching values of universality, access to good quality care, equity and solidarity. In 2011, it furthermore established a reflection process on the level of the EU to support states in providing modern, responsive and sustainable health systems.

7.2 Financial protection and equity in financing

7.2.1 Financial protection

The general obligation for all people resident in Germany to have health insurance introduced by the Act to Strengthen Competition in SHI has applied since January 2009. All members of the SHI system and their family members have the same entitlement to the services and benefits they need irrespective of their insurance status, the amount of contributions paid or the duration of insurance. The services and benefits provided by the statutory sickness funds include prevention, early recognition and treatment. Although co-payments apply for benefits provided by the sickness funds (see section 3.4), overall private health expenditure in Germany is relatively low.

If out-of-pocket payments on health are seen as a percentage of total household consumption, Germany, at 1.8%, is below the OECD average of 2.9% (OECD, 2013a). In 2010, 5% of the adult population with below-average income and 10% of that with above-average income had medical expenses of over US$ 1000 (OECD, 2011).

Although out-of-pocket payments are low in terms of the comparison made by the OECD, the legislature has implemented measures particularly designed to protect low-income sections of the population and the chronically ill from

excessive financial burdens. This means that patients whose co-payments exceed 2% of their gross household income are exempted from further co-payments. The threshold for patients with a chronic disease is 1%.

7.2.2 Equity in financing

The co-existence of SHI and PHI in the German health insurance system creates substantial problems. People in above-average health and those on above-average incomes switch to PHI, thereby jeopardizing the financial viability of SHI. Empirical studies have shown that people insured privately have a significantly higher average income than those with SHI and are also, on average, healthier (Mielck & Helmert, 2006b).

As PHI does not share in financing the solidarity burdens that are largely left up to SHI, the contribution paid by young, healthy people in a higher income bracket for PHI is usually lower than it would have been in the SHI system despite the fact that the entitlement to benefits is often higher. This negative selection impairs the sustainability of financing of SHI. However, income-based solidarity also only exists in SHI to a certain extent as contributions are regressive once incomes exceed the contributions ceiling. In contrast, direct taxes such as income tax are progressive also in the case of increasing income – or, if the highest rate of tax is payable, at least proportional. Even VAT is only moderately regressive because of the exemptions from the full VAT rate (Bach, 2005). The positive effect of financing out of taxation is reinforced by the fact that people with PHI pay more tax on average and, as an increasing amount of tax is used to subsidize SHI, are making a growing contribution to income solidarity in SHI. Apart from this, a number of simulation calculations have shown that replacing income-dependent contributions by a combination of direct and indirect taxes could produce moderate positive employment effects (Meinhardt & Zwiener, 2005). Hence, the – at least until recently – growing proportion of financing out of taxation is to be judged as positive with regard to risk and income-based solidarity as well as for its effect on employment.

SHI also contributed to stabilizing the economy as a whole in the financial and economic crisis, with the help of increased subsidies paid out of taxation (Döring et al., 2009). The percentage of overall financing of SHI from taxes rose from just under 2% to 9% within only the two years from 2008 to 2010 (Greß, 2009).

7.3 User experience and equity of access to health care

7.3.1 User experience

Apart from financial protection (see section 7.2) and quality of care (see section 7.4), nonmedical factors play a major role in evaluating a health system. A user-orientated health system endeavours to do justice to the expectations its "customers" have in terms of satisfaction, rights, waiting times and access to care.

Within the European Project on Patient Evaluation of General Practice Care (EUROPEP), patients evaluated the care they receive in their GP's practice by using a validated 23-item questionnaire. Although the patients' evaluations were generally positive across countries, it can be stated that in 2009 German patients evaluated GP care below average (sixth out of eight countries, only better than the Netherlands and the United Kingdom). A comparison of EUROPEP data from 1998 and 2009 shows that patients became less positive as the mean rating on all items decreased in Germany over time from 88% to 85%. In 2009, positive ratings for the items "Helpfulness of the staff" (92.5%), "Getting an appointment to suit you" (90.4%) and "Getting through to the practice on the phone" (95.0%) were above the average across countries (89.9%, 88.6% and 86.3%, respectively). However, only 75.3% rated the item "Quick relief of your symptoms" as positive, which is 11.2 percentage points below average. This item, as well as "Knowing what has been done during previous contacts" and "Waiting time in the waiting room" have been rated worst in Germany compared with the other countries involved in the EUROPEP study (Grol et al., 2000; Petek et al., 2011).

Data from the OECD, however, indicate a high level of satisfaction with their regular doctor among German patients. In all four dimensions – "spending enough time with patient in consultation", "providing easy-to-understand explanations", "giving an opportunity to ask questions or raise concerns", and "involving patient in decisions about care and treatment" – Germany is one of the five leading countries among the 13 to 14 countries with data and ranks above the OECD average (OECD, 2013a).

The Health Consumer Powerhouse consultancy company has made a number of studies comparing the consumer friendliness of Europe's health services. The user friendliness of the individual health services is measured by a European Consumer Health Index. This index is made up of the pointed-based evaluation of 38 indicators divided up into six categories: (1) patient rights and information, (2) e-health, (3) waiting periods for medical treatment, (4) health outcomes, (5) quantitative care level, and (6) access to pharmaceuticals. The

index is a compilation of public statistics, patient questionnaires and studies carried out independently. The 2013 European Consumer Health Index shows that Germany still has one of the consumer-friendliest health systems in Europe (Björnberg et al., 2013). Germany came seventh in a comparison of 35 countries and had a much better rank than in the previous year. The German health system scored best in the "access to pharmaceuticals" category and relatively well in the "waiting time" category (Björnberg et al., 2013; see also section 7.4).

A study conducted by the Fritz Beske Institute for Health Service Research analysed the delivery level of benefits in-kind as well as monetary benefits for sickness or maternity using patient-orientation indicators, such as density of physicians and dentists; bed capacities in acute-care hospitals; average hospitalization periods; right to choose a physician and hospital; waiting periods for hospital treatment; extent of co-payments; scope of the benefit basket in the case of dentures, pharmaceuticals and medical aids; and the amount and duration of benefits in lieu of wages. The study concluded that in 2005, in comparison with 13 other countries, Germany had the best level of care and the widest spectrum of benefits and services (Beske, Dabrinski & Golbach, 2005).

The reasons for Germany topping the list are plain. The German health system has the largest capacity in the hospital sector. This, in turn, means that waiting periods for treatment are very short or non-existent. The SHI benefit basket for medical aids and pharmaceuticals in Germany is very extensive and benefits are also linked to comparatively low co-payments (Schölkopf, 2010). To summarize, it can be concluded that the German health system has few limitations and is strongly user orientated, enabling patients to receive almost any kind of treatment of their choice. This is achieved at costs that are almost average for western Europe, a fact indicating that the system works well.

7.3.2 Equity of access to health care

In an international comparison, Germany scores very well in access to medical care. Surveys of the Commonwealth Fund – as well as other studies – often conclude that Germany comes out best on the question of access to medical care (Schoen et al., 2010, 2011). For example, a Commonwealth Fund survey showed that 83% of respondents waited less than four weeks for an appointment with a specialist and 78% answered that waiting time for an elective surgery was less than one month. However, cost-related access problems do exist in Germany. In 2011, 6% of interviewed people did not fill a prescription for medicine or skipped doses, and another 16% did not visit a doctor although they had a specific medical problem; only 70% responded that they were confident of being able to afford the care needed if they were seriously ill (Schoen et al., 2011).

Taking OECD data as a basis, Germany is clearly low in the ranking of 11 OECD countries when the question of whether the costs associated with medical treatment deter patients from seeing a physician: 17% of interviewees with above-average income and 27% with below-average income stated that they had not consulted a physician for reasons of cost although they had a medical condition or a recommended medical examination or treatment was due. This placed Germany second from bottom after the United States (39%) in the 11 OECD countries studied (OECD, 2011).

In terms of human resources, Germany scores very well in numbers of physicians and provision of beds for long-term and acute conditions. According to the most recent OECD data, there were 3.8 practising physicians per 1000 population in Germany in 2011 compared with an OECD average of 3.2. With 11.4 practising nurses per 1000 population, Germany was again above the OECD average of 8.4 (OECD, 2013a). A number of studies confirm that Germany has the shortest waiting times for an appointment with a GP or specialist physician and for surgery and also the quickest access to medical care outside consultation or opening hours in comparison with other industrialized countries (Schölkopf, 2010).

In an international comparison, physicians are more evenly distributed regionally in Germany than in almost any other OECD country for which such data are available (OECD, 2013a). Even so, there are also increasingly large regional differences and a lack of specialists in some rural areas and in certain sectors in Germany. While there is an oversupply of physicians in many urban areas, regions with a low population density, predominantly in the new federal *Länder* (the former German Democratic Republic), have an appreciable shortage of physicians in both the ambulatory and hospital sectors (Kopetsch, 2010).

A major problem of access to medical care lies in the different remuneration structures in SHI and PHI, particularly, but not only, in ambulatory medical care (see section 3.6.2). For SHI-covered patients, a physician receives a combination of flat rates and payments of individual benefits up to a maximum quantity, the practice-based volume of standard services. The same physician receives payments of individual benefits without a maximum quantity for patients with PHI. Although the Uniform Value Scale and the one for PHI (Catalogue of Tariffs for Physicians) are structured differently and, therefore, difficult to compare, physicians earn more for private patients by (1) charging the 1.7- or 2.3-fold basic rate and (2) not being limited in the maximum amount they can invoice.

The differing remuneration systems lead to clear financial incentives for physicians. Privately insured patients are more lucrative and receive preferential treatment. In comparison with privately insured patients, SHI-covered patients have shorter consultation times with a physician, feel less well advised and less involved in the decision-making process (Mielck & Helmert, 2006a). Empirical data show that privately insured patients also have better access to medical care in the form of short waiting times (Lüngen et al., 2008).

An indicator to assess equality of access to care for patients with SHI or PHI that is standard in Germany is the waiting time for an appointment with a physician. Different studies draw similar conclusions with different specificities. The 2007 Health Monitor (*Gesundheitsmonitor*) comes to the conclusion that a GP practice does not make any distinction between SHI and PHI patients when allocating an appointment. In contrast, the period a patient has to wait for an appointment with a specialist physician is shorter for patients with PHI. On average, they are given an appointment two and a half days earlier and when at the practice have to wait nine minutes less (Schellhorn, 2007). In a telephone survey carried out by WAZ-Mediengruppe, telephone callers to 350 medical practices said they were either PHI- or SHI-covered patients. The survey found significant differences in the waiting time for an appointment of an average 23 days in favour of privately insured patients.

These differences in access do not only lead to differences in service and convenience. More important is the risk of inadequate care or incorrect care of patients with SHI and at the same time the risk of superfluous care provided to private patients (Greß, 2009).

7.4 Health outcomes, health service outcomes and quality of care

7.4.1 Population health

In 2011, the life expectancy of the population of Germany as a whole was 80.8 years, slightly above the OECD average of 80.1 years. In terms of infant mortality, Germany, with 3.4 deaths per 1000 live births in 2010, was significantly better than the OECD average of 4.1 and slightly better than the EU15 average of 3.6 (see section 1.4).

Scientific studies of the causes and effects of inequality in health care in Germany have gained increasing importance in recent years. The health and life expectancy of the German population is largely influenced by social circumstances and level of education, individual lifestyles and harmful environmental factors. Health is impaired by unemployment and circumstances threatening impoverishment; a low awareness of the importance of health; harmful effect of air pollution and noise; tobacco and consumption of alcohol, as well as harmful eating habits and a lack of exercise; overweight; high blood pressure; and fat metabolism disorders. These determinants, which are of particular significance for chronic disorders, also reveal numerous possibilities for prevention and health enhancement (Statistisches Bundesamt, 2006).

Both positive and negative tendencies can be deduced from the various determinants. While general living conditions have steadily improved in Germany over the last decades, inequalities and poverty risks have generally increased over the same period. The unemployed, welfare recipients, women raising children alone and children growing up in a poverty environment have less favourable chances of being healthy (Statistisches Bundesamt, 2006).

Low income is associated with increased risk of contracting disease and experiencing health problems. Research results show that many chronic diseases occur more frequently in people living in poverty (Mielck, 2005; Davey Smith, 2008; Geyer, 2008). Apart from this, poverty also coincides with behaviour that constitutes a greater health risk, for example smoking (Lampert & Burger, 2004), alcohol consumption (Henkel, 2008), lack of exercise and an unhealthy diet (Robert Koch-Institut, 2005). The health disadvantages ultimately culminate in a higher rate of premature death and shorter lifespans, which in Germany, based on the average life expectancy as of birth, can be put at 5 to 10 years (Lampert, Kroll & Dunkelberg, 2007).

Irrespective of income, education has implications for health and attitude to health. Unemployed men and women have a greater incidence of health impairments and risk factors. The average life expectancy of the population is lower in regions with higher rates of poverty and unemployment (Robert Koch-Institut, 2009).

The relationship between social circumstances and health is similarly markedly different in a comparison between the new and the old federal *Länder*. Following 20 years of joint development, the most conspicuous differences in health indicators no longer exist when the new federal *Länder* are compared with the old ones. Instead the differences are far more attributable to the relative poverty or affluence of the individual regions. For children and young adults

in Germany, it is less a question of whether they were born in one of the old or the new federal *Länder* but what education opportunities they had and in what social circumstances they grew up (Robert Koch-Institut, 2009).

7.4.2 Health service outcomes and quality of care

The quality of medical care in individual countries is often measured on the basis of empirical surveys or quality indicators. In the case of empirical surveys such as that of the Eurobarometer survey conducted by the European Commission, which studies how the quality of care provided by GPs and specialists as well as by hospitals is assessed, Germany's rating is average. In contrast, Germany scores significantly better for the question regarding the frequency of errors in treatment (European Commission, 2006). As the data are based on the subjective assessment of the individual interviewee and are influenced by differing cultural attitudes and assessments, the extent to which they reflect the quality of health care actually achieved in the country in question is, however, questionable.

Another measure to assess the quality of health care is the concept of "amendable mortality". This indicator reflects premature deaths that should not occur in the presence of timely and effective health care. Based on the WHO mortality database, amenable mortality declined in Germany from 106 deaths per 100 000 population in 1997/8 to 76 deaths per 100 000 population in 2006/7. However, amenable mortality still accounts for 25.0% of total mortality in those under 75 years of age and for both sexes combined in Germany, which is slightly above the OECD average of 24.4% (Nolte & McKee, 2011).

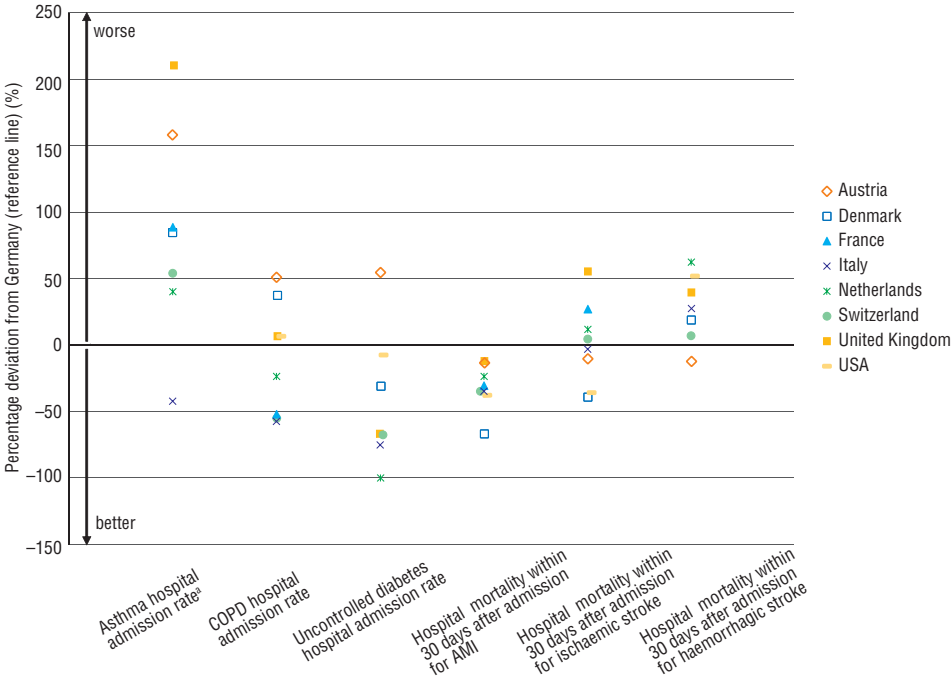
The OECD Health Care Quality Indicators Project in particular should be mentioned when the quality of health care is measured using quality indicators. This project assesses the quality of medical care – the restoration of health or improvement in the state of health attributable to medical care – using selected indicators (Mattke et al., 2006).

The indicators relate to certain disease-specific mortality rates, and morbidity for certain diseases, and also include some process-orientated indicators such as immunization rates and data on behaviour patterns of the population in question that are relevant to health.

According to the *Health at a Glance* report (OECD, 2013b) for avoidable hospital admissions in the case of chronic diseases, Germany ranked fifth, with 19.6 admissions per 100 000 population, for asthma in 2011 (OECD average 45.8) but was above the OECD average for COPD (212 admissions) and diabetes (56 admissions) (OECD, 2013b; Fig. 7.1).

Fig. 7.1

Percentage deviation of selected OECD quality indicators in comparison with Germany (reference line) for care of patients with chronic and acute illness, selected countries, 2011 or latest available year



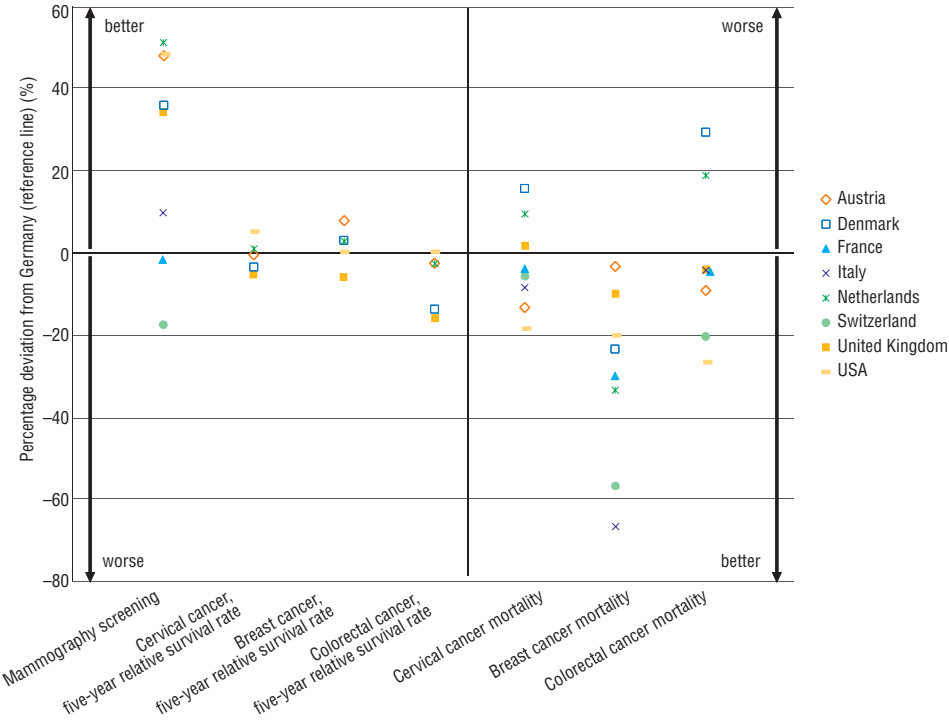
Source: Based on data in OECD, 2013b.
Notes: AT: Austria; DK: Denmark; FR: France; IT: Italy; NL: the Netherlands; CH: Switzerland; UK: United Kingdom; US: United States; COPD: chronic obstructive pulmonary disease; AMI: Acute myocardial infarction; [a]The deviation for asthma hospitalization rate in the case of the United States is 497% and this outlier was disregarded for the purpose of better illustration.

Germany scores comparatively well in the medical care of patients who have suffered a stroke. In 2011, Germany had a relative low case-fatality rate (6.7% within 30 days after admission) for adults aged 45 and over hospitalized following an ischaemic stroke. Although 10 countries had lower rates, Germany was, according to the report, below the OECD average of 8.5% (OECD, 2013b). In contrast, when looking at the hospital mortality rates within 30 days after admission for an acute myocardial infarction, the results for Germany are sobering. The age- and gender-standardized rate was 8.9%, thus significantly above the OECD average of 7.9% (OECD, 2013b). The figures are lower, in some cases substantially, than in Germany in all selected comparable countries: Austria, Denmark, France, Italy, the Netherlands, Switzerland, the United Kingdom and the United States (Fig. 7.1).

Regarding cancer care, comparable data are available for certain screening activities, relative five-year survival rates of patients as well as population-based mortality rates. The relative survival rates over a five-year period (2006–2011) show that only in the case of cervical cancer (64.5%) was the rate in Germany below the OECD average (66.0%). Survival rates in breast cancer (85.0%) and colorectal cancer (64.3%) were above the OECD average of 84.2% and 61.3%, respectively. Looking at the selected comparable countries, Germany lies in the middle. The survival rate for colorectal cancer even ranks second in the list of selected countries (Fig. 7.2). Nor is Germany leading among OECD countries to the extent that its health service avoids the occurrence of disease through preventive measures. With a breast cancer screening rate of 54.3% for women aged between 50 and 69 years, Germany lies well below the OECD average of 61.5% (Fig. 7.2).

Fig. 7.2

Percentage deviation of selected OECD quality indicators in comparison with Germany (reference line) for care of cancer patients, selected countries, 2011 or latest available year



Source: Based on data in OECD, 2013b.
Notes: AT: Austria; DK: Denmark; FR: France; IT: Italy; NL: the Netherlands; CH: Switzerland; UK: United Kingdom; US: United States.

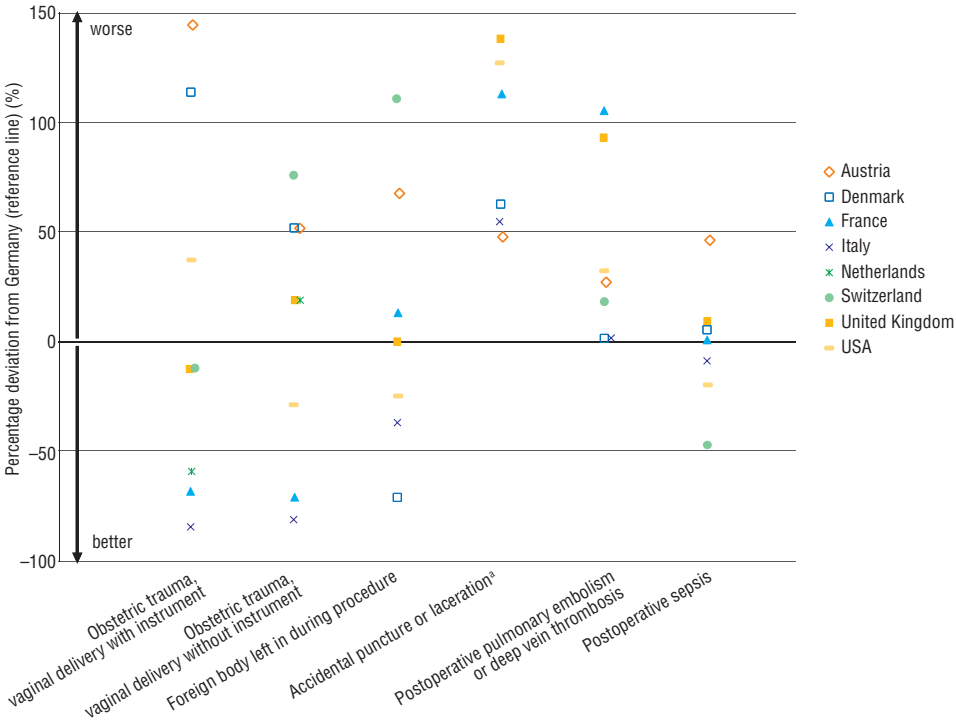
The age-standardized mortality rate for breast cancer (30.0 per 100 000 women) is above the OECD average (26.3). The mortality rates for colorectal cancer (24.0 per 100 000 population) and cervical cancer (3.0 per 100 000 women) are, however, below the OECD average of 25.0 and 3.7, respectively. Looking at Germany's position among the comparable countries, it has the highest rate of breast cancer mortality and it ranks in the middle of the list for colorectal cancer and cervical cancer (Fig. 7.2).

In its report, the OECD uses a number of patient safety indicators to measure the results of different health services (Drösler, Romano & Wei, 2009). Germany scores better in this set of indicators than in the earlier ones, although the results are not overwhelming. For example, the "accidental puncture or laceration" figure for Germany was 0.07% in 2009 (three times below the OECD average of 0.22%). For "postoperative pulmonary embolism or deep vein thrombosis", the value was 0.42%, which is below the OECD average of 0.60%. Germany is also below the OECD average of 0.78% for the indicator "postoperative sepsis", at 0.66%. As can be seen from Fig. 7.3, Germany scores best in these indicators in a comparison with the selected countries. Only Switzerland, the United States and Italy have better results in the "postoperative sepsis" indicator. However, the age-standardized figure in the "foreign body left" indicator, 5.5 per 100 000 hospital discharges, is worse than the OECD average (5.0). Among the selected countries, only France and Switzerland scored worse (Fig. 7.3).

For the indicators "obstetric trauma, vaginal delivery with instruments" and "obstetric trauma, vaginal delivery without instruments", the German figures of 8.1% and 2.1%, respectively, were higher than the OECD averages of 6.0% and 1.6%, respectively. When compared with the selected countries, Germany ranked once again in the middle in these patient safety indicators (Fig. 7.3).

It goes without saying that the results of the different indicator sets presented cannot be used to assess a health service as a whole. Nonetheless, they can give an impression of how successful the provision of medical care is in certain parts of the service. Taking the example of Germany, there is, despite its high care capacities (or because of its overcapacities), room for improvement in the quality of treatment in certain areas.

Fig. 7.3
Percentage deviation of selected OECD quality indicators in comparison with Germany (reference line) for patient safety, selected countries, 2011 or latest available year



Source: Based on data in OECD, 2013b.
Notes: AT: Austria; DK: Denmark; FR: France; IT: Italy; NL: the Netherlands; CH: Switzerland; UK: United Kingdom; US: United States; [a]For Switzerland, the deviation in the case of "accidental puncture or laceration" was 388% and this outlier was disregarded for the purpose of better illustration.

7.5 Health system efficiency

In an international comparison, the German health service is seen as being efficient but expensive (OECD, 2011). Total expenditure on health amounted to 11.3% of GDP in 2011, which is 2 percentage points above the average of the OECD countries (9.3%). At the same time, with per capita health expenditure of US$ 4495 (in purchasing power parity), Germany ranks seventh among OECD countries (OECD, 2013a).

Expenditure on health in Germany rose by an average of 2.1% a year in real terms between 2000 and 2011. In comparison with all other OECD countries, this was a relatively low increase in this period when the factor of a comparatively

rapidly ageing population is taken into consideration. The average increase in expenditure on health was 4.1% a year between 2000 and 2011 in the OECD countries. The relatively slow increase in expenditure on health in Germany is partly attributable to cost-containment measures introduced as part of the health care reforms. The percentage of public expenditure on health was 76.4% in 2011, thus clearly above the OECD average of 72.6%.

7.5.1 Allocative efficiency

The German health system has comparatively large human, infrastructural and technological resources at its disposal, which are well able to meet the expectations and needs of the population and the patients (see Chapter 4).

However, there are regional differences in care capacities even though physicians are more evenly distributed in Germany than in other OECD countries for which such data are available (OECD, 2013a). A shortage of qualified personnel is perceptible in some rural areas despite the markedly higher density of physicians in comparison with other European countries. While there is massive oversupply of physicians in many urban areas, some rural areas, particularly in the new federal *Länder*, have an acute shortage of physicians, in both the ambulatory and the hospital sectors.

Needs-based planning in the ambulatory sector newly takes factors such as age, gender, morbidity and socioeconomic status of the population or provision of hospital beds into consideration. Up to 2013, the number of practice-based physicians was based on the number of SHI physicians (in relation to the population) who actually practised in 1990 in their field in the average of all planning areas of a group. This resulted in maintenance or continuation of differences that had historical origins without any adjustment of planning to reflect the needs of the population (Busse & Riesberg, 2004). A corresponding restructuring of needs planning in the ambulatory sector that also takes morbidity-based factors into account was begun with the 2011 SHI Care Structures Act (see sections 2.8.3 and 6.1.6).

In Germany, there were 5.3 beds per 1000 inhabitants for acute care, which is clearly above the OECD average of 3.4. As in most of the OECD countries, hospital bed density in Germany has decreased over time in line with the fall in the average length of hospitalization (OECD, 2013a).

A central problem is the dual financing of the hospital sector. This means that investments in the hospital sector are funded out of federal and federal state taxes, whereas ongoing costs are borne by sickness funds or private patients; the expenses of the latter are, if applicable, reimbursed by private health insurers (see sections 3.6.1 and 4.1.1).

Irrespective of their legal form, hospitals must be included in hospital plans (*Krankenhausplan*) in order to be eligible for investments. This mechanism allows public, non-profit and private institutions to receive taxpayers' money for investments in their hospitals provided that these investments are in keeping with the criteria of the hospital's plan and so long as money is available for this purpose.

Dual financing in the hospital sector results in dual planning. This task sharing releases the planners – the federal *Länder* – from the necessity of taking the follow-up costs of investments into account, thus favouring overprovision of capacities and major items of equipment (Rürup et al., 2008). Because of the effects of the DRG remuneration system, planning by the federal *Länder* is under pressure to adjust as hospitals must now try to close departments that produce deficits – something that is frequently in conflict with the goals of hospital planning. Therefore, there are calls for greater participation in the planning process by those financing the operating costs. This will be possible if financing of the investments, and thus also of planning, is fully or partly transferred to those providing funding.

Pharmaceuticals care in Germany is comprehensive (see section 5.6). The costs of drugs financed by the sickness funds are among the highest in the OECD. In principle, any newly licensed pharmaceutical can be prescribed and in the past manufacturers were able to set prices at their discretion. In order to counteract the high level of expenditure, since 2011 manufacturers must prove that pharmaceuticals with new active substances have an additional benefit in comparison with existing comparable treatment. If they fail to do so, the pharmaceutical will be allocated to an existing reference-price group. The government hopes that this enhanced assessment of costs and benefits and further regulations on reference prices, compulsory discounts and price freezes will lead to a more efficient use of resources (see section 6.1.5).

7.5.2 Technical efficiency

Germany's health system is efficient and ensures a high level of care for almost the entire population in terms of quantity. As far as the efficiency of the health system is concerned (i.e. the measurable output of the resources used), various studies using different methodologies as well as various indicator sets and weightings come to differing conclusions. Some studies look at the quantitative level of care, which can be relatively easily shown by indicators such as density of beds or physicians. If this is seen in relation to expenditure, the degree to which a health system is efficient can be shown. However, the drawback of this method is that ultimately it is not the outcome of the health system – the level of health in the population – but the input – in the form of number of beds and physicians – that serves as the basis of measurement.

Some studies try to measure the efficiency of a health system by comparing the relationship between input and outcomes of treatment or the level of health in the population. One of the most extensive studies of this kind was the *World Health Report 2000* (WHO, 2000). However, measuring the outcomes of treatment is associated with numerous problems; in particular the comprehensive data required are often lacking and so results are often based on estimates.

Germany has the second largest number of hospital discharges (244 per 1000 inhabitants compared with an OECD average of 156). Apart from this, the average length of stay of 9.3 days is well above the OECD average of 8.0. Total expenditure on pharmaceuticals was 31% per capita (purchasing power parity) above the OECD average. The expenditure on pharmaceuticals borne by the sickness funds is among the highest in the OECD (OECD, 2013a).

With 3.8 practising doctors per 1000 population, Germany has a higher density of GPs than the average in the OECD (3.2). With a share of 41.9% specialists, the figure for Germany is substantially higher than the OECD average of 29.6%. With 9.4 doctor visits per capita in 2011 (the actual number of visits is probably higher), patients in Germany consult a physician more frequently than the OECD average (6.7 consultations per capita) (OECD, 2013a). The actual number of visits is significantly higher.

The gross income of a physician in private practice in Germany is, after deduction of the costs of the practice, 2.7-fold of the average wage, making it the highest in the OECD countries reviewed (OECD, 2013a). The income of a specialist physician in private practice is fivefold of the average income and is only exceeded by the Netherlands and Belgium (OECD, 2013a).

Despite the comparatively good supply of physicians and nurses, the quantitative proportion of doctors to nurses is less ideal. There are more nurses per physician (3.0) in Germany than the OECD average (2.8) and also recruitment and training of nurses is lower than that of physicians. For every 1000 nurses in Germany, only 24.4 newly graduated nurses enter the profession in Germany each year; the OECD average is 53.7. Unlike physicians' income, pay in the nursing profession is only the OECD average (OECD, 2013a). If the number of qualified nurses does not increase in future, requirements will not be met as the present members of the profession retire. The situation will be further aggravated if the increasing need for care of elderly patients and those with chronic diseases is taken into account.

The efficiency of the German health service is diminished by high costs arising from the large number of hospital beds, heavy expenditure on pharmaceuticals and relatively high physicians' fees (OECD, 2013a). Apart from this, there is a need to improve coordination between the individual care sectors (Schölkopf, 2010). If the resources spent on health are compared with the health status of the population, it can be seen that in some countries people "are healthier" and "live longer" even though costs are lower; in other words, the health services in these countries are more efficient than that in Germany (OECD, 2013a).

8. Conclusions

In international comparison, the German health care system has one of the most comprehensive benefit catalogues and one of the highest levels of supply quality. Furthermore, the services are associated with comparably low cost-sharing. As, furthermore, the per capita expenditure for health care in Germany is only in the upper middle range, the German health care system has a relatively high level of efficiency in a comparison of the costs with the available resources and the benefits provided.

In international comparison, the German health care system has a generous benefit basket, one of the highest levels of capacity as well as modest cost-sharing. Expenditure per capita is high but expenditure growth has been modest in spite of a growing number of services provided both in hospital and in ambulatory care, an indication of technical efficiency. In addition, access is good – evidenced by low waiting times and relatively high satisfaction with out-of-hours care. The reason is the relatively high supply capacity in rural areas.

However, the German health care system also shows areas in need of improvement when compared with other countries. This is demonstrated by the low satisfaction figures with the health system in general; respondents see a need for major reform more often than in many other countries. If the outcomes of individual illnesses are analysed, an important area is quality of care. In spite of all the reforms that have taken place, Germany is rarely placed among the top OECD or EU15 countries, but usually around average, and sometimes even low.

During reform measures, more emphasis could, therefore, be placed on the improvement in quality of medical services. Although much is already being done for the measurement and securing of quality, which is, for instance, shown by the quality indicators in the inpatient sector, a sustainable improvement has not resulted overall and is probably counteracted by the significantly increasing number of cases in some areas, which give rise to the suspicion that there may

be an inadequate provision of services and thus a lack of contribution to the improvement of results. In addition to the publicly discussed safeguarding of health care in rural areas, overcapacities that become apparent in international comparisons should be given increased attention.

In addition, the division into SHI and PHI remains one of the largest challenges for the German health care system – as risk pools differ and different financing, access and provision lead to inequalities. Reform measures that hamper the inflow of "good risks" into the PHI system (and which have in the meantime been taken back again) and which at the same time facilitate the inflow of "bad risks" through the basic tariff, as well as the increase of tax-based funding, are merely the first steps on the way towards fair competition between the health insurance systems and, ultimately, towards a sound and sustainable health system for the entire population based on solidarity.

9. Appendices

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9.2 Useful web sites

Association of Private Health Insurance Companies:
http://www.pkv.de/ (accessed 24 February 2014)

Federal Association of SHI Physicians:
http://www.kbv.de/ (accessed 24 February 2014)

Federal Association of Sickness Funds:
http://www.gkv-spitzenverband.de/ (accessed 24 February 2014)

Federal Health Reporting:
http://www.gbe-bund.de/ (accessed 24 February 2014)

Federal Information System about SHI-covered Prescriptions (GamiSI):
http://www.gkv-gamsi.de/ (accessed 24 February 2014)

Federal Insurance Authority:
http://www.bundesversicherungsamt.de/ (accessed 24 February 2014)

Federal Joint Committee:
https://www.g-ba.de/ (accessed 24 February 2014)

Federal Ministry of Health:
http://www.bmg.bund.de/ (accessed 24 February 2014)

Federal Physician Chamber:
http://www.bundesaerztekammer.de/ (accessed 24 February 2014)

Federal Statistical Office:
https://www.destatis.de/ (accessed 24 February 2014)

Robert Koch Institute:
http://www.rki.de/ (accessed 24 February 2014)

9.3 HiT methodology and production process

HiTs are produced by country experts in collaboration with the Observatory's research directors and staff. They are based on a template that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources and examples needed to compile reviews. While the template offers a comprehensive set of questions, it is intended to be used in a flexible way to allow authors and editors to adapt it to their particular national context. The most recent template is available online at: http://www.euro.who.int/en/home/projects/observatory/publications/health-system-profiles-hits/hit-template-2010.

Authors draw on multiple data sources for the compilation of HiTs, ranging from national statistics, national and regional policy documents to published literature. Furthermore, international data sources may be incorporated, such as those of the OECD and the World Bank. The OECD Health Data contain over 1200 indicators for the 34 OECD countries. Data are drawn from information collected by national statistical bureaux and health ministries. The World Bank provides World Development Indicators, which also rely on official sources.

In addition to the information and data provided by the country experts, the Observatory supplies quantitative data in the form of a set of standard comparative figures for each country, drawing on the European Health for All database. The Health for All database contains more than 600 indicators defined by the WHO Regional Office for Europe for the purpose of monitoring Health in All Policies in Europe. It is updated for distribution twice a year from various sources, relying largely upon official figures provided by governments as well as health statistics collected by the technical units of the WHO Regional Office for Europe. The standard Health for All data have been officially approved by national governments. With its summer 2013 edition, the Health for All database started to take account of the enlarged EU of 28 Member States.

HiT authors are encouraged to discuss the data in the text in detail, including the standard figures prepared by the Observatory staff, especially if there are concerns about discrepancies between the data available from different sources.

A typical HiT consists of nine chapters.

1. Introduction: outlines the broader context of the health system, including geography and sociodemography, economic and political context, and population health.
2. Organization and governance: provides an overview of how the health system in the country is organized, governed, planned and regulated, as well as the historical background of the system; outlines the main actors and their decision-making powers; and describes the level of patient empowerment in the areas of information, choice, rights, complaints procedures, public participation and cross-border health care.
3. Financing: provides information on the level of expenditure and the distribution of health spending across different service areas, sources of revenue, how resources are pooled and allocated, who is covered, what benefits are covered, the extent of user charges and other out-of-pocket payments, voluntary health insurance and how providers are paid.
4. Physical and human resources: deals with the planning and distribution of capital stock and investments, infrastructure and medical equipment; the context in which information technology systems operate; and human resource input into the health system, including information on workforce trends, professional mobility, training and career paths.
5. Provision of services: concentrates on the organization and delivery of services and patient flows, addressing public health, primary care, secondary and tertiary care, day care, emergency care, pharmaceutical

care, rehabilitation, long-term care, services for informal carers, palliative care, mental health care, dental care, complementary and alternative medicine, and health services for specific populations.

6. Principal health reforms: reviews reforms, policies and organizational changes; and provides an overview of future developments.
7. Assessment of the health system: provides an assessment based on the stated objectives of the health system, financial protection and equity in financing; user experience and equity of access to health care; health outcomes, health service outcomes and quality of care; health system efficiency; and transparency and accountability.
8. Conclusions: identifies key findings, highlights the lessons learned from health system changes; and summarizes remaining challenges and future prospects.
9. Appendices: includes references, useful web sites and legislation.

The quality of HiTs is of real importance since they inform policy-making and meta-analysis. HiTs are the subject of wide consultation throughout the writing and editing process, which involves multiple iterations. They are then subject to the following.

- A rigorous review process (see the following section).
- There are further efforts to ensure quality while the report is finalized that focus on copy-editing and proofreading.
- HiTs are disseminated (hard copies, electronic publication, translations and launches). The editor supports the authors throughout the production process and in close consultation with the authors ensures that all stages of the process are taken forward as effectively as possible.

One of the authors is also a member of the Observatory staff team and they are responsible for supporting the other authors throughout the writing and production process. They consult closely with each other to ensure that all stages of the process are as effective as possible and that HiTs meet the series standard and can support both national decision-making and comparisons across countries.

9.4 The review process

This consists of three stages. Initially the text of the HiT is checked, reviewed and approved by the series editors of the European Observatory. It is then sent for review to two independent academic experts, and their comments and amendments are incorporated into the text, and modifications are made accordingly. The text is then submitted to the relevant ministry of health, or appropriate authority, and policy-makers within those bodies are restricted to checking for factual errors within the HiT.

9.5 About the authors

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