



Austria

Health system review

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Health Systems in Transition

Austria

Health System Review 2018

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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 policymakers 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 contact@obs.who.int.

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

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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.

The Austrian Public Health Institute (*Gesundheit Österreich GmbH*, GÖG) is the national public health research and planning institute and incorporates the Austrian Institute for Health Research (ÖBIG), the Federal Institute for Quality in the Health Care System (BIQG) and the Austrian Health Promotion Fund (FGÖ). It is owned by the Federal State of Austria, which in turn is represented by the Federal Ministry of Labour, Social Affairs, Health and Consumer Protection. GÖG is independent in its scientific work. It is involved in the preparation of national health care reforms, policies and regulations on the provision of health care in Austria. At the intersection of research and policy, it draws from an international scientific network to provide evidence-based recommendations to policymakers.

This edition was written by Florian Bachner, Julia Bobek, Katharina Habimana, Joy Ladurner, Lena Lepuschütz, Herwig Ostermann, Lukas Rainer, Andrea E. Schmidt and Martin Zuba (all of GÖG). It was edited by Juliane Winkelmann, working with the support of Wilm Quentin of the Observatory's team at the Berlin University of Technology. The basis for this edition was the previous HiT on Austria which was published in 2013, written by Maria M. Hofmarcher, and edited by Wilm Quentin.

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The European Observatory on Health Systems and Policies is a partnership, hosted by the WHO Regional Office for Europe, which includes the Governments of Austria, Belgium, Finland, Ireland, Norway, Slovenia, Sweden, the United Kingdom and the Veneto Region of Italy; the European Commission; the World Bank; UNCAM (French National Union of Health Insurance Funds); the London School of Economics and Political Science;

and the London School of Hygiene & Tropical Medicine. The European Observatory has a secretariat in Brussels and hubs in London (at LSE and LSHTM) and at the Berlin University of Technology.

The Observatory team working on HiTs is led by Josep Figueras (Director), Elias Mossialos, Martin McKee, Reinhard Busse (Co-directors), Ewout van Ginneken, Ellen Nolte and Suszy Lessof. The Country Monitoring Programme of the Observatory and the HiT series are coordinated by Anna Maresso. The production and copy-editing process of this HiT was coordinated by Jonathan North, with the support of Caroline White and Alex Billington (typesetting).

GLOSSARY OF TERMS AND INSTITUTIONS

| ENGLISH NAME (ABBREVIATION) | GERMAN NAME (ABBREVIATION) |
|---|---|
| Accident Insurance Fund | Allgemeine Unfallversicherungsanstalt (AUVA) |
| Act on Health Insurance for Farmers | Bauern-Krankenversicherungsgesetz (B-KVG) |
| Act on Health Insurance for the Self-Employed | Gewerbliches Selbständigen-Krankenversicherungsgesetz (GSKVG) |
| Act on Pension Insurance for Farmers | Bauern-Pensionsversicherungsgesetz |
| Act on Social Insurance for Farmers | Bauern-Sozialversicherungsgesetz (BSVG) |
| Act on Social Insurance for the Self-Employed in Commerce, Trade and Industry | Freiberuflichen Sozialversicherungsgesetz (FSVG) |
| Agreement under Article 15a of the Federal Constitutional Law | Vereinbarung gemäß Artikel 15a Bundes-Verfassungsgesetz (B-VG) |
| ambulatory (extramural) | extramural |
| Anti-Corruption Act | Anti-Korruptionsgesetz |
| Association of the Austrian Pharmaceutical Industry | Verband der pharmazeutischen Industrie Österreichs (PHARMIG) |
| Associations Act | Vereinsgesetz (VerG) |
| Austrian Act on Medical Devices | Medizinproduktegesetz (MPG) |
| Austrian Agency for Health and Food Safety | Agentur für Gesundheit und Ernährungssicherheit GmbH (AGES) |
| Austrian Anti-Poverty Network | Armutskonferenz |
| Austrian Association of Higher Medical Technical Staff | Dachverband der gehobenen medizinisch-technischen Dienste Österreichs |
| Austrian Association for Addiction Prevention | Österreichische ARGE Suchtvorbeugung |
| Austrian Chamber of Agriculture | Landwirtschaftskammer (LK) |
| Austrian Chamber of Commerce | Wirtschaftskammer Österreich (WKÖ) |
| Austrian Chamber of Labour | Arbeiterkammer (AK) |
| Austrian Chamber of Pharmacists | Österreichische Apothekerkammer (ÖAK) |
| Austrian Court of Auditors | Österreichischer Rechnungshof (RH) |
| Austrian Dental Chamber | Zahnärztekammer (ZÄK) |
| Austrian DRG System (LKF) | Leistungsorientierte Krankenanstaltenfinanzierung (LKF), LKF System |
| Austrian Health Promotion Fund | Fonds Gesundes Österreich (FGÖ) |
| Austrian Health Targets | Gesundheitsziele Österreich |

| | |
|---|---|
| Austrian Inpatient Quality Indicators (A-IQI) | Bundesweit einheitliche Messung von Ergebnisqualität im Krankenhaus (A-IQI) |
| Austrian Institute for Health Research | Österreichisches Bundesinstitut für Gesundheitswesen (ÖBIG) |
| Austrian Medical Chamber | Österreichische Ärztekammer (ÖÄK) |
| Austrian Midwives' Association | Österreichisches Hebammengremium (ÖHG) |
| Austrian Nurses Association | Österreichischer Gesundheits- und Krankenpflegeverband |
| Austrian Platform for Health Literacy | Österreichische Plattform Gesundheitskompetenz (ÖPGK) |
| Austrian Public Health Association | Österreichische Gesellschaft für Public Health |
| Austrian Public Health Institute | Gesundheit Österreich GmbH (GÖG) |
| Austrian Red Cross | Österreichisches Rotes Kreuz (ÖRK) |
| Austrian Society for Quality Assurance and Quality Management in Medicine | Österreichische Gesellschaft für Qualitätssicherung und Qualitätsmanagement in der Medizin GmbH (ÖQMed) |
| Austrian Structural Plan for Healthcare | Österreichischer Strukturplan Gesundheit (ÖSG) |
| Austrian Trade Union Federation | Österreichischer Gewerkschaftsbund (ÖGB) |
| Austrian Voluntary Insurance Association | Verband der Versicherungsunternehmen Österreichs (VVO) |
| Basic Care Act | Grundversorgungsgesetz (GVG) |
| Care allowance (long-term care) | Pflegegeld |
| Care leave (short-term) | Pflegefreistellung |
| Care leave allowance | Pflegekarenzgeld |
| Catalogue of ambulatory services | Katalog ambulanter Leistungen (KAL) |
| Catalogue of services/catalogue of procedures | Leistungskatalog |
| Chief physician (of a health insurance fund) | Chefarzt (eines Krankenversicherungsträgers) |
| Civil Servants' Health and Accident Insurance Act | Beamten-Kranken- und Unfallversicherungsgesetz (B-KUVG) |
| Collective contracts | Gesamtverträge |
| Company health insurance funds | Betriebskrankenkassen (BKK) |
| Compensatory allowance | Ausgleichszulage |
| Complementary and alternative medicine (CAM) | Komplementär- und Alternativmedizin |
| Conference of social insurance funds | Trägerkonferenz (der Sozialversicherungsträger) |
| Cover for operational losses | Betriebsabgangsdeckung (BAD) |
| Dental outpatient clinic | Zahngesundheitszentrum |
| Dental Practitioners Act | Zahnärztegesetz (ZÄG) |
| Guidelines for rational prescribing | Richtlinien über die ökonomische Verschreibweise von Heilmitteln und Heilbehelfen (RÖV) |
| Elective physician/ non-contracted physicians | Wahlarzt |
| Electronic health insurance card | e-card, Sozialversicherungs-Chipkarte |
| Electronic health record | Elektronische Gesundheitsakte (ELGA) |
| Electronic Health Record Institution | ELGA GmbH |
| Employee Protection Act | ArbeitnehmerInnenschutzgesetz (AschG) |
| European health insurance card (EHIC) | Europäische Krankenversicherungskarte (EKVK) |
| European Medicines Agency (EMA) | Europäische Arzneimittel-Agentur |
| European Reference Network (ERN) | Europäisches Referenznetzwerk (ERN) |
| Evidence-based Medicine (EbM) | Evidenzbasierte Medizin |

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| Evidence-based Public Health | Evidenzbasierte öffentliche Gesundheit |
| family hospice leave | Familienhospizkarenz |
| Federal government | Bundesregierung |
| Federal Act on Social Insurance for Persons engaged in Trade and Commerce | Gewerbliches Sozialversicherungsgesetz (GSVG) |
| Federal Act on the Quality of Health Care | Gesundheitsqualitätsgesetz (GQG) |
| Federal Act on the Registration of Health Care Professions | Gesundheitsberuferegister-Gesetz (GBRG) |
| Federal Bureau of Anti-Corruption | Bundesamt zur Korruptionsprävention und Korruptionsbekämpfung (BAK) |
| Federal Constitutional Law | Bundes-Verfassungsgesetz (B-VG) |
| Federal Environment Office | Umweltbundesamt (UBA) |
| Federal Health Agency | Bundesgesundheitsagentur (BGA) |
| Federal Health Commission | Bundesgesundheitskommission (BGK) |
| Federal Hospital Act | Krankenanstalten- und Kuranstaltengesetz (KAKuG) |
| Federal Institute for Quality in the Health Care System | Bundesinstitut für Qualität im Gesundheitswesen (BIQG) |
| Federal Long-Term Care Allowance Act | Bundespflegegeldgesetz (BPGG) |
| Federal Ministry of Defence and Sports | Bundesministerium für Landesverteidigung und Sport (BMLVS) |
| Federal Ministry of Education | Bundesministerium für Bildung (BMB) |
| Federal Ministry of Education, Science and Research | Bundesministerium für Bildung, Wissenschaft und Forschung (BMBWF) |
| Federal Ministry of Finance | Bundesministerium für Finanzen (BMF) |
| Federal Ministry of Health | Bundesministerium für Gesundheit (BMG) |
| Federal Ministry of Health and Women's Affairs | Bundesministerium für Gesundheit und Frauen (BMGF) |
| Federal Ministry of Health, Family and Youth | Bundesministerium für Gesundheit, Familie und Jugend (BMGFJ) |
| Federal Ministry of Justice | Bundesministerium für Justiz (BMJ) |
| Federal Ministry of Labour, Social Affairs and Consumer Protection | Bundesministerium für Arbeit, Soziales und Konsumentenschutz (BMASK) |
| Federal Ministry of Labour, Social Affairs, Health and Consumer Protection | Bundesministerium für Arbeit, Soziales, Gesundheit und Konsumentenschutz (BMASGK) |
| Federal Ministry of Sustainability and Tourism | Bundesministerium für Nachhaltigkeit und Tourismus (BMNT) |
| Federal Ministry of the Interior | Bundesministerium für Inneres (BMI) |
| Federal Office for Safety in Health Care | Bundesamt für Sicherheit im Gesundheitswesen (BASG) |
| Federal Social Welfare Office | Bundessozialamt |
| Federal Target-Based Governance Agreement | Bundes-Zielsteuerungsvertrag (B-ZV) |
| Federal Target-Based Governance Commission | Bundes-Zielsteuerungskommission (B-ZK) |
| Financial Equalization Act | Finanzausgleichsgesetz (FAG) |
| Financial Market Authority | Finanzmarktaufsicht (FMA) |
| Funds hospitals | Fondskrankenanstalten (FKAs) |
| General Civil Code | Allgemeines bürgerliches Gesetzbuch (ABGB) |
| General salary fund of Austrian pharmacists | Pharmazeutische Gehaltskasse |
| General Social Insurance Act | Allgemeines Sozialversicherungsgesetz (ASVG) |

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| Health and Social Assistance Act | Gesundheits- und Sozialbereich-Beihilfengesetz (GSBG) |
| Health and Welfare Institution | Krankenfürsorgeanstalt (KFA) |
| Health Behaviour in School-Aged Children (HBSC) | Gesundheitsverhalten von Kindern im schulpflichtigen Alter (HBSC) |
| Health Care Professions Register | Gesundheitsberuferegister |
| Health Impact Assessment (HIA) | Gesundheitsfolgeabschätzung (GFA) |
| Health in All Policies (HiAP) | Gesundheit in allen Politikfeldern |
| Health Insurance Structural Fund | Krankenkassen-Strukturfonds (KSF) |
| Health platform (at <i>Länder</i> level) | Gesundheitsplattform (Landes-) |
| Health Promotion Act | Gesundheitsförderungsgesetz (GfG) |
| Health Reform Act | Vereinbarungsumsetzungsgesetz (VUG) |
| Hospital Finance Equalization Fund | Ausgleichsfonds für die Krankenanstaltenfinanzierung |
| Hospital outpatient department | Ambulanz |
| Imperial Sanitary Act | Reichssanitätsgesetz |
| Income Tax Law | Einkommenssteuergesetz (EstG) |
| Inpatient care | Intramurale Versorgung |
| Institute for Advanced Studies | Institut für Höhere Studien (IHS) |
| Institute for Health Promotion and Prevention | Institut für Gesundheitsförderung und Prävention GmbH (IfGP) |
| Insurance Contract Act | Versicherungsvertragsgesetz (VersVG) |
| Interregional Equalization Fund (of regional SHI funds) | Ausgleichsfonds der Gebietskrankenkassen |
| <i>Länder</i> level (state) | Landesebene |
| Law on the Supervision of Insurance Undertakings | Versicherungsaufsichtsgesetz (VAG) |
| LKF core area | LKF Kernbereich |
| LKF steering area (also referred to as LKF control range) | LKF Steuerungsbereich |
| Long-term care fund | Pflegefonds |
| Ludwig Boltzmann Institute for Health Technology Assessment | Ludwig Boltzmann Institut für Health Technology Assessment (LBI-HTA) |
| Main Association of Austrian Social Security Institutions | Hauptverband der österreichischen Sozialversicherungsträger (HVB) |
| Main diagnosis groups | Hauptdiagnosegruppe (HDG) |
| Major Equipment Plan | Großgeräteplan |
| Medical Training Regulation | Ärzteausbildungsordnung (ÄAO) |
| Medicines Act | Arzneimittelgesetz (AMG) |
| Midwifery Act | Hebammengesetz (HebG) |
| Graded model of hospice and palliative care | modular abgestufte Hospiz- und Palliativversorgung |
| Mother-child-pass (screening programme) | Mutter-Kind-Pass (Programm) |
| National Action Plan for Nutrition | Nationaler Aktionsplan Ernährung (NAP.e) |
| National Action Plan for Physical Activity | Nationaler Aktionsplan Bewegung (NAP.b) |
| National Action Plan on Antimicrobial Resistance | Nationaler Aktionsplan zur Antibiotikaresistenz (NAP-AMR) |
| National Centre for Early Childhood Intervention | Nationales Zentrum Frühe Hilfen (NZFH) |

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| National Health Service (NHS) | Nationaler Gesundheitsdienst |
| National Strategy for Suicide Prevention | Nationales Suizidpräventionsprogramm Suizidprävention Austria (SUPRA) |
| National Vaccination Committee | Nationales Impfgremium |
| Needs-based minimum income | Mindestsicherung |
| Non-profit Institutions Serving Households (NPISH) | Private Organisationen ohne Erwerbszweck (POoE) |
| Nursing Act | Gesundheits- und Krankenpflegegesetz (GuKG) |
| Office for Prosecution for Corruption | Wirtschafts- und Korruptionsstaatsanwaltschaft (WKStA) |
| Outpatient care (in hospital departments) | Spitalsambulante Versorgung |
| Outpatient clinics | Ambulatorien |
| Over-the-counter (OTC) medicine | Rezeptfreies Arzneimittel |
| Penal Code | Strafgesetzbuch (StGB) |
| Pension insurance fund | Pensionsversicherungsanstalt (PVA) |
| Pharmaceutical Evaluation Board | Heilmittel-Evaluierungskommission (HEK) |
| Pharmacy Act | Apothekengesetz (ApoG) |
| Physicians' Act | Ärztegesetz (ÄrzteG) |
| Positive list (ambulatory (extramural) sector) | Erstattungskodex (EKO) / Positivliste |
| Prescription by International Nonproprietary Name (INN) | Wirkstoffverschreibung |
| Prescription commission | Rezeptpflichtkommission |
| Prescription-only medicine | Rezeptpflichtiges Arzneimittel |
| Primary Health Care Act | Primärversorgungsgesetz (PrimVG) |
| Primary health care unit | Primärversorgungseinheit (PVE) |
| Private Hospitals Financing Fund | Privatkrankenanstalten-Finanzierungsfonds (PRIKRAF) |
| Procedure- and/or diagnosis-related case groups (LDF groups) | Leistungsorientierte Diagnosefallpauschalen (LDF) |
| Procedure-related group | medizinische Einzelleistungen (MEL) |
| Public health service | Öffentlicher Gesundheitsdienst (ÖGD) |
| Regional social health insurance funds | Gebietskrankenkassen (GKK) |
| Regional Structural Plan for Healthcare | Regionaler Strukturplan Gesundheit (RSG) |
| Social health insurance (SHI) | Soziale Krankenversicherung |
| Social health insurance (SHI) fund | Krankenversicherungsträger |
| Social insurance | Sozialversicherung (SV) |
| Social Insurance Transition Act | Sozialversicherungs-Überleitungsgesetz (SV-ÜG) |
| Specialist insurance funds | Sonderversicherungsträger |
| Specialist physician | Facharzt |
| Standing high-level committee | Ständiger Koordinierungsausschuss |
| State government | Landesregierung |
| State Health Funds | Landesgesundheitsfonds (LGF) |
| State Health Promotion Funds | Landesgesundheitsförderungsfonds |
| State Target-Based Governance Agreement | Landes-Zielsteuerungsvertrag |
| State Target-Based Governance Commission | Landes-Zielsteuerungskommission (L-ZK) |
| Statistics Austria | Statistik Austria |

| | |
|---|-----------------------------|
| Supreme Health Board | Oberster Sanitätsrat |
| Target-Based Health Governance | Zielsteuerung-Gesundheit |
| Telephone helpline for patients (non-emergency number) | Gesundheitsberatung 1450 |
| University Act | Universitätsgesetz (UG) |
| Value-added tax (VAT) | Umsatzsteuer (USt) |
| Voluntary health insurance (VHI) | Private Krankenversicherung |

LIST OF ABBREVIATIONS

| | |
|---------------|---|
| AGES | Austrian Agency for Health and Food Safety (Agentur für Gesundheit und Ernährungssicherheit GmbH) |
| AIDS | Acquired immunodeficiency syndrome |
| A-IQI | Austrian Inpatient Quality Indicators |
| AMI | Acute myocardial infarction |
| ASVG | General Social Insurance Act (Allgemeines Sozialversicherungsgesetz) |
| ATHIS | Austrian Health Interview Survey |
| BGA | Federal Health Agency (Bundesgesundheitsagentur) |
| BKK | Company health insurance funds (Betriebskrankenkassen) |
| B-KUVG | Civil Servants' Health and Accident Insurance Act (Beamten-Kranken- und Unfallversicherungsgesetz) |
| BMASGK | Federal Ministry of Labour, Social Affairs, Health and Consumer Protection (Bundesministerium für Arbeit, Soziales, Gesundheit und Konsumentenschutz) |
| BSVG | Act on Social Insurance for Farmers (Bauern- Sozialversicherungsgesetz) |
| B-ZK | Federal Target-Based Governance Commission (Bundes-Zielsteuerungskommission) |
| CARK | Central Asian Republics and Kazakhstan |
| COFOG | Classification of the Functions of Government |
| COPD | Chronic obstructive pulmonary disease |
| CT | Computed tomography |
| DRG | Diagnosis-related group |
| e-card | Electronic health insurance card |
| EC | European Community |
| EHIS | European Health Interview Survey |
| ELGA | electronic health record (Elektronische Gesundheitsakte) |

| | |
|----------------|---|
| EU | European Union |
| EU-15 | 15 EU Member States before May 2004 |
| EU-28 | 28 EU Member States at 1 July 2013 |
| EU-SILC | EU statistics on income and living conditions |
| FFS | Fee-for-Service |
| FPP | Fee per patient/period |
| FSVG | Act on Social Insurance for the Self-Employed in Commerce, Trade and Industry (Freiberuflichen Sozialversicherungsgesetz) |
| GDP | Gross domestic product |
| GKK | Regional SHI funds (Gebietskrankenkassen) |
| GÖG | Austrian Public Health Institute (Gesundheit Österreich GmbH) |
| GP | General practitioner |
| GSVG | Federal Act on Social Insurance for Persons engaged in Trade and Commerce (Gewerbliches Sozialversicherungsgesetz) |
| HIA | Health Impact Assessment |
| HIV | Human immunodeficiency virus |
| HBSC | Health behaviour in school-aged children |
| HPV | Human papillomavirus |
| HTA | Health technology assessment |
| HVB | Main Association of Austrian Social Security Institutions (Hauptverband der österreichischen Sozialversicherungsträger) |
| ICD | International Classification of Diseases |
| ICT | Information and Communication Technology |
| IHS | Institute for Advanced Studies (Institut für Höhere Studien) |
| ILO | International Labour Organization |
| INN | International Nonproprietary Name |
| IOTN | Index of Orthodontic Treatment Need (Index der Zahn- und Kieferfehlstellung) |
| LBI-HTA | Ludwig Boltzmann Institute for Health Technology Assessment |
| LDF | procedure- and/or diagnosis-related case groups (Leistungsorientierte Diagnosefallpauschalen) |
| LGF | State Health Funds (Landesgesundheitsfonds) |
| LKF | Austrian DRG System (Leistungsorientierte Krankenanstaltenfinanzierung) |

| | |
|--------------|--|
| LTC | Long-term care |
| MRI | Magnetic resonance imaging |
| NCD | noncommunicable disease |
| NGO | Nongovernmental organization |
| NPISH | Non-profit Institutions Serving Households |
| ÖBIG | Austrian Institute for Health Research (<i>Österreichisches Bundesinstitut für Gesundheitswesen</i>) |
| OECD | Organisation for Economic Co-operation and Development |
| OOP | Out of pocket |
| OTC | Over the counter |
| PET | Positron emission tomography |
| SHA | System of Health Accounts |
| SHI | Social health insurance |
| VAT | Value-added tax |
| VHI | Voluntary health insurance |
| WHO | World Health Organization |

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ABSTRACT

This analysis of the Austrian health system reviews recent developments in organization and governance, health financing, health care provision, health reforms and health system performance. Two major reforms implemented in 2013 and 2017 are among the main issues today. The central aim of the reforms that put in place a new governance system was to strengthen coordination and cooperation between different levels of government and self-governing bodies by promoting joint planning, decision-making and financing. Yet despite these efforts, the Austrian health system remains complex and fragmented in its organizational and financial structure.

The Austrian population has a good level of health. Life expectancy at birth is above the EU average and low amenable mortality rates indicate that health care is more effective than in most EU countries. Yet, the number of people dying from cardiovascular diseases and cancer is high compared to the EU-28 average. Tobacco and alcohol represent the major health risk factors. Tobacco consumption has not declined over the last decade like in most other EU countries and lies well above the EU-28 average.

In terms of performance, the Austrian health system provides good access to health care services. Austria's residents report the lowest levels of unmet needs for medical care across the EU. Virtually all the population is covered by social health insurances and enjoys a broad benefit basket. Yet, rising imbalances between the numbers of contracted and non-contracted physicians may contribute to social and regional inequalities in accessing care. The Austrian health system is relatively costly. It has a strong focus on inpatient care as characterized by high hospital utilization and imbalances in resource allocation between the hospital and ambulatory care sector. The ongoing reforms therefore aim to bring down publicly financed health expenditure growth with a global budget cap and reduce overutilization of hospital care. Efficiency of inpatient

care has improved over the reform period but the fragmented financing between the inpatient and ambulatory sector remain a challenge. Current reforms to strengthen primary health care are an important step to further shift activities out of the large and costly hospital sector and improve skill mix within the health workforce.

EXECUTIVE SUMMARY

■ Introduction

The Federal Republic of Austria is a relatively sparsely populated country with 8.7 million inhabitants. In 2016, Austria's gross domestic product (GDP) amounted to €40 000 per capita, placing Austria 6th among EU Member States. Austria's overall growing population and labour force and its relatively low level of unemployment have substantially contributed to the growth of its domestic economy in the last two decades.

Austria is a parliamentary republic with nine states (*Länder*). Decision-making powers are shared between the federal government and the *Länder*. Legislative processes primarily take place at the federal level in the national parliament, which consists of two chambers, the National Council (*Nationalrat*) and the Federal Council (*Bundesrat*). State parliaments (*Landtage*) have legislative power at the *Länder* level. A distinctive feature of the Austrian political system is that formal representatives of employers and employees (and other interest groups), which are collectively known as the Social Partners, have significant influence on legislative processes, especially in the area of social policy and health policy.

Life expectancy at birth in Austria remains above the European Union (EU) average (80.9 years) and has increased by more than three years since 2000, to 81.6 years in 2016. Healthy life years have not significantly changed over recent years and remain below the EU average. Diseases of the circulatory system such as stroke and myocardial infarction together with malignant neoplasms are the causes of around two thirds of all deaths in Austria. With stable smoking rates among adults that are above the EU average (24% versus 21% in 2014) lung cancer represents the third leading cause of death in Austria. Also, alcohol consumption is among the highest in the EU. However, seven out of 10 Austrians (70%) report being in good health, which is slightly higher than the EU average (67%).

■ Organization and governance

The Austrian health system is complex and fragmented: 1) responsibilities are shared between the federal and the *Länder* level; 2) many responsibilities have been delegated to self-governing bodies (social insurance and professional bodies of health service providers); and 3) health care financing is mixed, with the state (federal and *Länder* level) and social health insurance (SHI) funds contributing to different parts of the budget.

Health-related legislation is made at the federal level, usually initiated by the Federal Ministry of Labour, Social Affairs, Health and Consumer Protection (*Bundesministerium für Arbeit, Soziales, Gesundheit und Konsumentenschutz*, BMASGK). The nine *Länder* are responsible for ensuring the availability of adequate hospital capacity, including outpatient care in hospitals, and they finance a major part of inpatient and outpatient care provided by hospitals. Ambulatory (extramural) care is regulated by collective contracts negotiated between self-governing bodies of SHI funds and providers.

Numerous reform attempts have aimed at improving cooperation and coordination in the health care system. In particular, the health reform 2013 has led to the emergence of a new target-based health governance system. Most importantly, a Federal Target-Based Governance Commission (*Bundes-Zielsteuerungskommission*, B-ZK) has been established, bringing together the federal level, the *Länder* and SHI funds to jointly define financial targets and health targets for the country. These are then further specified by State Target-Based Governance Commissions that bring together the main actors at the *Länder* level.

The B-ZK has also become the most important actor for joint planning of health care provision structures through the Austrian Structural Plan for Healthcare (*Österreichischer Strukturplan Gesundheit*). This framework for integrated planning of all sectors of the health system, including inpatient, ambulatory, and rehabilitation care, is translated by the *Länder* and the regional SHI funds into (nine) Regional Structural Plans for Healthcare (*Regionale Strukturpläne*). Since 2018, parts of the Austrian- and Regional-Structural Plans for Healthcare may be made legally binding. In addition, 10 Austrian Health Targets have been developed under the involvement of a broad range of stakeholders. Following a Health in All Policies approach, these targets are broken down by intersectoral working groups into sub-targets, indicators, concrete actions and benchmarks.

Health information systems remain fragmented although efforts towards increased transparency for the population have been made over the past years. A range of services and sources of information about providers and the quality of services provided is available to patients, and patients have free choice of provider. Nevertheless, choice of provider may be limited by the place of residence, as urban and rural health service structures often differ considerably.

■ Financing

The Austrian health system is relatively costly. Around US\$ 5 138 was spent on health per capita in 2015 (adjusted for differences in purchasing power), about US\$1 800 more than the EU average. Health expenditure in Austria is also high relative to GDP (10.2% of GDP in 2015), which is considerably above the EU average (8.7%). More than 75% of total current health expenditure is financed from public sources. About 18% of expenditure is out-of-pocket (OOP) payments, which is above the EU average (15%), while voluntary health insurance (VHI) only plays a minor role in the system. Average growth rates of health expenditure have been constantly higher than GDP growth rates in recent years, which is currently tackled by caps on federal, sectoral and *Länder* health budgets as part of health care reform.

The health system is financed by a mix of general tax revenues and compulsory SHI contributions. Income-related SHI contributions accounted for about 60% of publicly financed health expenditure, while the remaining 40% come from general taxation, including value-added tax (VAT), income tax and tobacco tax, which are collected at federal level. SHI has nearly universal coverage (99.9%). There is no competition between SHI funds as the insured are assigned by type or place of employment.

Providers of acute care hospital services are paid mainly via a Diagnosis-Related Group (DRG)-like budget allocation system. Most acute care is provided by public and private non-profit hospitals that are funded via state health funds (*Landesgesundheitsfonds*, LGF). Providers of ambulatory care under contract with SHI funds are paid directly by SHI funds via a mixture of fee-for-service and contract capitations. Non-contracted providers represent a significant share of ambulatory specialists and can freely set their fee levels.

Patients have to pay for these providers out-of-pocket but are subsequently reimbursed 80% of the applicable SHI tariff.

■ Physical and human resources

Austria has one of the highest rates of capital expenditure in health care among OECD countries, spending more than 0.7% of GDP in 2015. Capital expenditure has increased since 2000, in particular in private institutions. Medical equipment is relatively well distributed across the country due to national planning mechanisms and the number of units relative to population is slightly above the EU-15 average.

The hospital inpatient sector in Austria remains very large. Despite reform plans to reduce the number of hospital beds, the beds-per-population-ratio in 2014 was one of the highest in the EU (5.84 versus 3.94 acute care beds per 1 000 population). Since 2007, the number of beds in DRG-financed acute care hospitals decreased by 8%, but this is a modest reduction compared to other European countries. Hospital utilization rates also decreased between 2006 and 2015, but Austria still has the second highest hospital discharge rate in the EU.

Development of information and communications technology and e-health made considerable progress over the last decade. Implementation of the electronic health record (*Elektronische Gesundheitsakte*, ELGA) and its e-medication and e-report applications is currently ongoing, with nationwide rollout to all providers due to be completed by 2021. This aims to reduce organizational barriers, improve care coordination and empower patients.

Austria has the second highest density of practising physicians (510 per 100 000) in the EU after Greece – much higher than on average in EU countries (350 per 100 000) and has a tradition of being a net exporter of doctors. However, also inside Austria, the density of physicians has grown more strongly since 2000 (by 34%) than on average in the EU (14%), mostly driven by a growth of specialist physicians. However, the number of ambulatory physicians who contract with SHI has stagnated over recent years. This has led to a rising imbalance and unequal distribution of doctors across regions, which is likely to be exacerbated by the ageing of contracted doctors. In contrast to physicians, Austria has relatively low numbers of nurses, although international comparisons of nursing staff are difficult because of

limited data availability in Austria. A new mandatory health professional's registry implemented in 2018 will allow better comparability in the coming years.

■ Provision of services

Provision of health services in Austria is characterized by relatively unrestricted access to all levels of care including general practitioners (GPs), specialists and hospitals. There is no formal gatekeeping system in place. For ambulatory care, patients can choose between independently practising physicians, group practices, hospital outpatient departments and outpatient clinics. Patients also have choice between SHI contracted physicians (45%) and those without contract (55%) (subject to the reimbursement limits described above, numbers reflect relation to head counts).

In general, health care provision remains strongly focused on hospital care. Austria continues to have the second highest number of hospital discharges per population in the EU (after Bulgaria). The current health reform process aims to shift service provision away from hospital inpatient and outpatient departments towards increased provision in the ambulatory (extra-mural) sector with a particular focus on the strengthening of primary health care. A promising but small step in this direction will be the implementation of 75 multidisciplinary primary health care units as part of the primary health care reform between 2017 and 2021. However, in the past, the fragmentation of responsibility and financing between *Länder* and SHI funds has often complicated coordination and hampered the shifting of service provision towards the ambulatory sector, as this would increase the expenditure of SHI funds.

Social and long-term care provision is separate from the health care system in terms of legislation, responsibilities and financing, adding another layer of complexity and further complicating coordination of care provision. Long-term care provision relies heavily on a non-means-tested cash-for-care allowance paid to approximately 5% of the population. Services are provided in different settings such as informal care by families (42%), formal home care (32%), day care (2%), residential care (19%) and 24-hour home care by privately paid assistants (5%).

Austria has a relatively high density of pharmaceutical provision with community pharmacies, dispensing doctors, and hospital pharmacies or

pharmaceutical depots. The generics share of prescribed and dispensed pharmaceuticals is relatively low both in volume and value partially because neither INN prescribing (International Nonproprietary Name) nor generic substitution is allowed in Austria. The planned implementation of e-prescription and e-medication applications of the electronic health record ELGA may improve appropriate prescribing and reduce adverse consequences of poly-pharmacy in the next few years.

Preventive health care in Austria is still strongly focused on medical prevention, although efforts are under way to include social and environmental aspects. Despite free vaccination programmes for children, Austria has comparatively low vaccination rates among 1-year olds (83% for diphtheria, tetanus and pertussis and 76% for measles). Tobacco consumption is a major public health issue and an important risk factor in Austria, which is likely related to comparatively weak smoking policies and the absence of a comprehensive smoking ban in bars and restaurants.

■ Principal health reforms

Recent years have witnessed two major policy developments that aimed to improve population health and overcome the fragmentation of responsibilities and financing by promoting joint planning, decision-making and financing. The first was the development and adoption of the 10 Austrian Health Targets in 2012, which serve as a new guiding framework for Austria's health policy and for ongoing and future reforms until 2032. The targets were developed in a broad participatory process and build upon a Health in All Policies approach. The overarching goal for all targets is to increase healthy life expectancy of the Austrian population by two years. The targets were adopted by the federal government but they received broad support from all relevant stakeholders and provide a common vision for the future development of the health system.

The second initiative was the establishment of the new Target-Based Governance system in 2013. The first Federal Target-Based Governance Agreement was concluded in 2013 for the period until 2016. It included 12 strategic goals grouped into four key governance areas of: 1) financial targets, 2) health care structures, 3) health care processes and 4) health care outcomes. All reform activities in the years 2013 to 2016 were somehow linked to the

first Federal Target-Based Governance Agreement. The most important goal with regard to financing was to bring down publicly financed health expenditure growth to 3.6% per year in 2016 through the introduction of a budget cap covering expenditure of federal and *Länder* governments as well as of SHI funds. The budget cap and specific financial targets for each *Land* and SHI fund were set with the *Länder* contributing 60% and SHI funds 40% to the budget cap. One of the most important reform activities with regard to health care structures was the development of a new approach to the provision of primary health care, which ultimately led to the adoption of the Primary Health Care Act in 2017.

A second Federal Target-Based Governance Agreement was signed in 2017 defining goals for health reforms for the period to 2021. The agreement mandates the establishment of the 75 primary health care units described above and the strengthening of ambulatory specialist care besides supporting further developments in the area of health literacy and health promotion. Publicly financed health expenditure growth is targeted to be reduced to 3.2% per year.

Finally, the new government has announced in its coalition agreement of January 2018 to embark on a major structural reform. While details are not yet available, the plan is to merge the nine regional SHI funds in order to create a single Austrian SHI fund (*Österreichische Gesundheitskasse*), which would cover almost 80% of the insured population.

■ Assessment

The Austrian health system is based on the principles of solidarity, affordability and universality. Virtually all the population is covered by social health insurance and enjoys a broad benefit basket and good access to health care. Austria reports the lowest level of unmet need for medical care across the European Union, despite relatively high out-of-pocket payments and differing waiting times for patients with and without voluntary health insurance (VHI). Vulnerable population groups enjoy various exemptions from cost-sharing requirements. However, rising imbalances between contracted and non-contracted specialists in urban and rural areas and the ageing of contracted physicians might increase social and regional inequalities in access to health care in the future.

In assessing performance, the Austrian health system provides good quality care. Low amenable mortality rates indicate that on this measure health care is more effective than in most EU countries. Yet, the number of people dying from cardiovascular diseases and cancer is high compared to the EU-28 average. Unhealthy life styles represent the major health risk factors, in particular tobacco and alcohol consumption, which have not declined over the last decade in contrast to most other EU countries and lie well above the EU-28 average. In terms of quality of care, there is room for improvement of the effectiveness of cancer treatment (despite very good outcomes for certain cancer types) and equity in outcomes across socioeconomic groups and across *Länder*. The recently implemented Austrian Health Targets and the target-based health governance system aim at monitoring and promoting equity of outcomes and ensuring adequate health service provision based on the principles of equity, accessibility and quality of services.

In terms of efficiency, the Austrian health system is costly and characterized by high utilization of inpatient care, with a high number of hospital beds and hospitalization rates. In the course of the ongoing reforms, efficiency of inpatient care has improved through a gradual reduction of the average length of stay in hospitals. However, efficiency remains hampered by the separation of financing between the inpatient and ambulatory sectors despite recent efforts for joint planning and financing, and strengthening of primary health care. Respective targets and priority areas to further improve efficiency of hospital care are addressed through the ongoing reforms.

While Austrians are generally very satisfied with health care, challenges remain in terms of coordination between ambulatory and inpatient settings, and health and long-term care settings. In recent years, measures were taken to increase transparency, accountability and patient empowerment (e.g. with the introduction of a public health portal and online health information platforms), although provider performance is not publicly reported.

Introduction

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Austria is a parliamentary republic with nine states (*Länder*). Decision-making powers are shared between the federal government and the *Länder*. Legislative processes primarily take place at the federal level in the national parliament, which consists of two chambers, the National Council (*Nationalrat*) and the Federal Council (*Bundesrat*). State parliaments (*Landtage*) have legislative power at the *Länder* level. A distinctive feature of the Austrian political system is that formal representatives of employers and employees (and other interest groups), which are collectively known as the Social Partners, have significant influence on legislative processes, especially in the area of social policy and health policy.

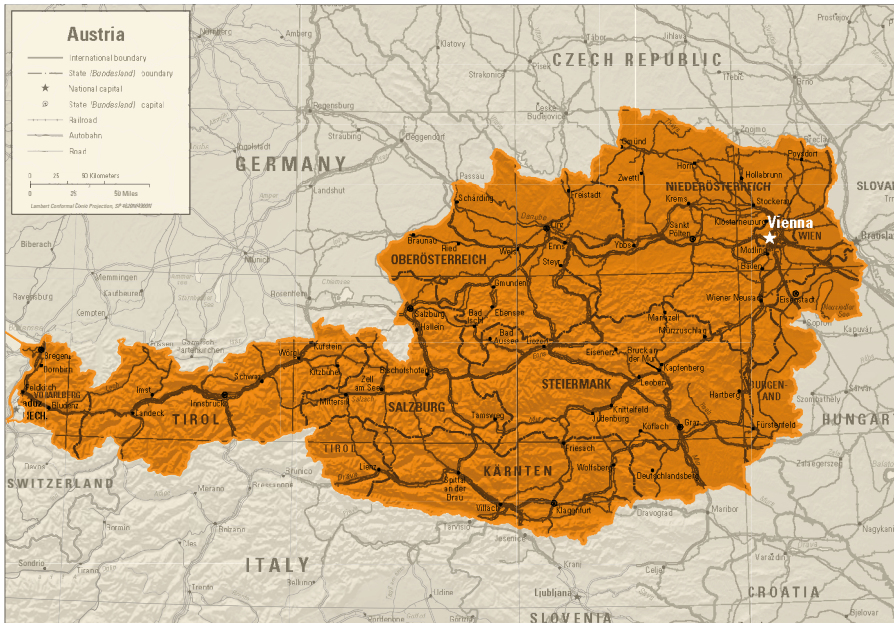
Life expectancy at birth in Austria remains above the European Union (EU) average (80.9 years) and has increased by more than three years since 2000, to 81.6 years in 2016. Healthy life years have not significantly changed over recent years and remain below the EU average. Diseases of the circulatory system, such as stroke and myocardial infarction, and malignant neoplasms are the cause of around two thirds of all deaths in Austria. With stable smoking rates in adults that are above the EU average (24% versus 21% in 2014), lung cancer represents the third leading cause of death in Austria. Also, alcohol consumption is among the highest in the EU. However, seven

out of 10 Austrians (70%) report being in good health, which is slightly higher than the EU average (of 67%).

1.1 Geography and sociodemography

Austria is a landlocked country. It borders eight countries: the Czech Republic, Germany, Hungary, Italy, Liechtenstein, Slovakia, Slovenia and Switzerland (see Figure 1.1). The country is shaped by the Alps: around 40% of its land mass (approximately 84 000 km²) is more than 1 000 m above sea level.

FIGURE 1.1 Map of Austria



Source: authors' compilation based on Weltkarte 2018

In 2016, Austria's population was approximately 8.7 million. Austria is relatively sparsely populated when compared to the EU average, with currently 106 inhabitants per square kilometre. Around one third of the population lives in rural areas and about 20% of the total population live in the capital Vienna. German is the official language, but specific rights are granted to recognized linguistic minorities. The majority (about 70%) of Austrians are Roman Catholic.

Fertility rates remained quite stable between 1995 and 2016 (Table 1.1). Since 1980, the annual population growth rate has been increasing as birth rates and migration inflows surpass death rates. The growing inflow of immigrants (European and non-European) has resulted in the fifth highest share of foreign nationals in the population (12.5%) among EU countries (Eurostat, 2015). As of 2016, 22.1% of the population had a background of migration (at least one parent is foreign born) (Statistics Austria, 2017g). Interestingly, the female population surplus is declining – mostly because widows of men killed during the Second World War are dying.

Similar to other western European countries, Austria's population is ageing. While the share of under-15-year-olds has declined by more than 15% since 2000, the share of the population older than 65 years has increased by almost 24% in the same period. This results in an age dependency ratio of nearly 50% (Table 1.1), which is one of the highest among EU-28 countries.

TABLE 1.1 Demographic indicators, selected years

| | 1980 | 1990 | 2000 | 2010 | 2016 |
|--|------------------|------------------|------------------|------------------|------------------|
| TOTAL POPULATION | 7 549 433 | 7 677 850 | 8 011 566 | 8 363 404 | 8 747 358 |
| Total population growth (av. annual growth rate) ¹ | - | 0.2 | 0.4 | 0.4 | 0.8 |
| Population aged 0–14 (% of total) | 20.5 | 16.9 | 16.8 | 14.7 | 14.2 |
| Population aged 0–14 growth (av. annual growth rate) ¹ | - | -1.9 | -0.1 | -1.3 | -0.6 |
| Population aged 15–64 (% of total) | 64.3 | 68.2 | 67.8 | 67.5 | 66.9 |
| Population aged 15–64 growth (av. annual growth rate) ¹ | - | 0.6 | -0.1 | 0.0 | -0.2 |
| Population aged 65+ (% of total) | 15.1 | 14.8 | 15.3 | 17.7 | 18.9 |
| Population aged 65+ growth (av. annual growth rate) ¹ | | -0.2 | 0.3 | 1.5 | 1.1 |
| Age dependency ratio (% of working-age population) ² | 55.4 | 46.6 | 47.4 | 48.1 | 49.5 |
| Population, female (% of total) | 52.7 | 52.2 | 51.5 | 51.3 | 50.8 |
| Fertility rate, total (live births per woman) | 1.7 | 1.5 | 1.4 | 1.4 | 1.5 |
| Birth rate, crude (per 1 000 people) | 12 | 11.8 | 9.8 | 9.4 | 10.0 |
| Death rate, crude (per 1 000 people) | 12.2 | 10.8 | 9.6 | 9.2 | 9.2 |
| Population density (people per sq km) | 91.4 | 93.0 | 97.0 | 101.3 | 106.0 |
| Rural population (% of total population) | 34.6 | 34.2 | 34.2 | 34.1 | 34.0 |

Notes: ¹ Average annual growth rates refer to the preceding periods. ² Age dependency ratio is the ratio of dependents to people younger than 15 or older than 64 to the working age population (those aged 15–64). Data presented as proportion of dependents per 100 working age population.

Sources: Statistics Austria 2017h, Statistics Austria 2017j, Statistics Austria 2017u, WHO 2017e

■ 1.2 Economic context

In 2016, Austria's GDP amounted to approximately €350 billion. In terms of GDP per capita, Austria ranked sixth among EU Member States (approximately €40 000 versus €29 000 at EU-28 level) (Eurostat, 2017b). Average annual growth rates have declined since the 1980s, which is similar to other western European countries (Table 1.2). In 2008 and 2009, Austria was affected by the global economic crisis but the economy recovered fast and effects of the crisis did not lead to austerity policies.

By the end of 2016 public debt in Austria amounted to €295.7 billion, corresponding to 84.6% of GDP (versus 65.9% in 2000; see also Table 1.2); the average public debt for EU-28 countries in 2016 was at 83.5% of GDP (Eurostat, 2017c). Public revenues are mainly derived from tax and social insurance contributions (87%). Almost half of public expenditure (46%) is attributed to social and health expenditure (Statistics Austria, 2017i). Due to population ageing, public spending on pension and health care is projected to increase, and may pose challenges to fiscal sustainability in the medium and long term (European Commission, 2017a).

Since the 2000s, the trade balance of goods and services is in surplus again and is increasing, meaning that Austria exports more goods and services than it imports. Industry accounts for around one third of value added in the Austrian economy, while value added by services contributes around two thirds. The share of agriculture has declined to 1.3% of GDP in 2016 (versus 4.9% in 1980) (Table 1.2).

The Austrian labour force has grown considerably since 2000 to about 4.5 million people in 2016. Currently, about 6% of the total labour force (according to the International Labour Organization (ILO) definition) are unemployed (Table 1.2), which is one of Europe's lowest unemployment rates. However, unemployment rates vary considerably across the *Länder* (Eurostat, 2017e): unemployment rates in Vienna (11.3%) are more than three times those in Salzburg or Vorarlberg (3.4%).

TABLE 1.2 Macro-economic indicators (current prices), selected years

| | 1980 | 1990 | 2000 | 2010 | 2016 |
|--|-------------|--------------|--------------|--------------|--------------|
| GDP, billion € | 77.0 | 137.2 | 213.2 | 294.6 | 349.3 |
| GDP (av. annual growth rate) ¹ | - | 6.0 | 4.5 | 3.3 | 2.9 |
| GDP, PPP (current international \$) billion | - | 148.9 | 234.8 | 350.5 | 438.1 |
| GDP per capita, € | 10 194.9 | 17 871.8 | 26 611.0 | 35 228.2 | 39 937.1 |
| GDP per capita (av. annual growth rate) ¹ | - | 5.8 | 4.1 | 2.8 | 2.1 |
| GDP per capita, PPP (current international \$) | - | 19 394.2 | 29 301.1 | 41 906.7 | 50 077.8 |
| Public debt (% of GDP) | - | - | 65.9 | 82.8 | 84.6 |
| External balance on goods and services (% of GDP) | -3.4 | -0.1 | 1.4 | 3.3 | 3.8 |
| Industry, value added (% of GDP) | 37.2 | 33.4 | 31.6 | 28.7 | 28.0 |
| Agriculture, value added (% of GDP) | 4.9 | 3.5 | 1.8 | 1.4 | 1.3 |
| Services etc., value added (% of GDP) | 58.0 | 63.1 | 66.5 | 69.9 | 70.7 |
| Labour force, total, million | - | 3.6 | 3.9 | 4.3 | 4.5 |
| Unemployment, total (% of total labour force) | 1.9 | 3.3 | 4.7 | 4.8 | 6.0 |

Notes: ¹ GDP, gross domestic product; PPP, purchasing power parity.

Sources: Eurostat, 2017f; Statistics Austria, 2017n; World Bank Group, 2017.

■ 1.3 Political context

Austria is a parliamentary republic and federal state based on democratic principles and the separation of powers. The Federal Constitution (*B-VG* 1930), the State Treaty (*Staatsvertrag*, 1955), the Declaration of Neutrality (*Neutralitätsgesetz* 1955) and the EU Accession Treaty (*EU-Beitrittsvertrag* 1995) collectively form the constitutional foundation of the republic. Vienna is the capital of Austria and seat of federal institutions and representations.

The federal president is head of state and the highest representative of the republic and directly elected by popular vote for a term of 6 years. The federal chancellor is head of the federal government. Based on the outcome of the federal elections, the president appoints the federal chancellor and the other members of the cabinet. The government or individual members of cabinet can be removed from office either by a presidential decree or a vote of non-confidence by the National Council (*Nationalrat*).

The Austrian Parliament is the legislative body at the federal level. It consists of two chambers: the National Council and the Federal Council (*Bundesrat*). The National Council has 183 members and is elected for a 5-year legislative period. Since 2007, all nationals older than 16 years (lowered from 18 years since 2007) are eligible to vote, making Austria one of few countries where minors are allowed to vote. As of 2017, five parties are represented in the National Council, of which two form the federal government – the conservative People’s Party (ÖVP) and the right-wing Freedom Party (FPÖ). Other parties currently represented in the National Council are the Social Democrats (SPÖ), the Liberal Party (NEOS), and the so-called Liste Pilz (a left-wing party founded by a former Member of the Green Party). The National Council – in particular the opposition parties – holds the federal government accountable via the Council’s democratic right of enquiry.

The Federal Council currently has 61 members who primarily represent the interests of the *Länder* in the process of federal legislation. The number of deputies from each of the nine *Länder* is proportionate to their populations (Austrian Parliament, 2017a). Deputies are elected by the state parliaments (*Landtage*) through proportional representation for the duration of the *Länder*’s legislative period. The main function of the Federal Council is to deliberate on and enact laws passed by the National Council. It may object to bills but the National Council can overrule its negative vote. For some laws formal approval from both chambers is required; for example, for those that limit the power of the *Länder* or affect the competencies of the Federal Council itself.

The initiative for a new law or the amendment of an existing one mostly comes from within the government (“government bill”). After submission to the National Council, government bills undergo a review process before being approved by the cabinet. Members of Parliament (in the National Council and Federal Council) may equally submit draft legislation (“motion”) for which no review procedure is necessary. Also, popular petitions receiving at least 100 000 signatures of the Austrian electorate or one sixth of signatures of the electorate of three *Länder* have to be debated in the National Council. After parliamentary discussion (comprising pre-discussions in preparatory committees and three readings), the National Council’s enactment is transmitted to the Federal Council for approval (Austrian Parliament, 2017b).

The Federal Republic of Austria has nine states (*Länder*): Burgenland, Carinthia, Lower Austria, Upper Austria, Salzburg, Styria, Tyrol, Vorarlberg and Vienna. Each state has its own government that is elected every five years by popular vote, except for Upper Austria, where elections are held every six years. A state government consists of a governor, deputies and other members of government (*Landesräte*). State parliaments have legislative power at the *Länder* level. The federal government has the right to object to resolutions of a state government, in case it contradicts federal interests.

SEPARATION OF POWERS

Governance in Austria is based on separation of powers in three branches of government (*trias politica*): the *legislative* (National and Federal Council and state parliaments), the *executive* (the federal government, the federal president and all federal and state authorities including the police and the armed forces which enforce federal law) and the *judiciary* (e.g. constitutional, administrative, labour and social, as well as civil courts) (Austrian Parliament, 2017c).

Besides the horizontal separation of powers, legislative and executive powers are divided vertically between the federal and the *Länder* level. The Federal Constitutional Law (Articles 10 to 15) regulates this division of responsibility by defining categories of competences. One important instrument of cooperation between the federal government and the *Länder* are agreements under Article 15a of the Federal Constitutional Law. Developments in health and social care, particularly the management of hospital provision, have been determined with this instrument (see also section 2.3). These agreements are concluded between the federal level and the *Länder*, usually in line with the general negotiations on fiscal allocation, as they commonly determine the financial flows for hospital care between the federal level and the *Länder*. At the local level, districts and municipalities carry out some administrative tasks (execution of laws) (Hofmarcher and Quentin, 2013).

The “Social Partnership” is a distinctive feature of Austria’s political system. “Social Partnership” is a specific system in which economic interest groups (chambers) cooperate informally with one another and the government. The most important bodies within the social partnership are

the Austrian Trade Union Federation (*Österreichischer Gewerkschaftsbund*), the Austrian Chamber of Commerce (*Wirtschaftskammer Österreich*), the Austrian Chamber of Labour (*Bundesarbeiterkammer*) and the Austrian Chamber of Agriculture (*Landwirtschaftskammer*). These associations have the right to review bills and represent the interests of their members in various committees, advisory councils and commissions, mainly in the fields of economic and social policy. In the past, these processes have contributed significantly to the stability of the Austrian economic and political system (Pelinka et al., 2016). Moreover, the Social Partners nominate to a large extent the representatives of the self-governing bodies of the social insurance funds and therefore play a vital role in the health system (see section 2.3.3).

INTERNATIONAL RELATIONS

Austria joined the European Union in 1995 and adopted the Euro as its official currency in 2002. Austria is also a member of the United Nations, the World Bank, the OECD, the Organization for Security and Co-operation in Europe, the World Trade Organization, the International Monetary Fund and the WHO. Austria is committed to permanent neutrality according to constitutional law (*Neutralitätsgesetz 1955*) and is thus not a member of any military alliance, such as the NATO.

■ 1.4 Health status of the population

Life expectancy at birth in Austria increased by 3.3 years between 2000 and 2016, to 81.6 years. In 2015, life expectancy in Austria was 0.7 years above the EU-28 average (Eurostat, 2017a). Similar to many other European countries, life expectancy increased more strongly for men than for women, but women still live nearly 5 years longer than men (Table 1.3). Since the year 2000, mortality rates have decreased considerably. However, in 2016, rates remained almost 50% higher for men (11.9 deaths per 1 000 males) than for women (7.9 deaths per 1 000 females) (Table 1.3).

TABLE 1.3 Life expectancy and mortality, 1980–2016 (selected years)

| | 1980 | 1990 | 2000 | 2010 | 2016 |
|---|------|------|------|------|------|
| Life expectancy at birth, total | 72.7 | 75.8 | 78.3 | 80.5 | 81.6 |
| Life expectancy at birth, men | 69.0 | 72.2 | 75.1 | 77.7 | 79.1 |
| Life expectancy at birth, women | 76.1 | 78.9 | 81.1 | 83.1 | 84.0 |
| Deaths per 1 000 population, total ¹ | 19.4 | 15.2 | 12.9 | 11.0 | 9.9 |
| Deaths per 1 000 population, men ¹ | 23.2 | 18.9 | 15.5 | 13.3 | 11.9 |
| Deaths per 1 000 population, women ¹ | 15.5 | 12.3 | 10.3 | 8.8 | 7.9 |

Notes: ¹ age and sex standardised with European Standard Population 2013

Sources: Statistics Austria, 2017q; Statistics Austria, 2018a, author's calculations

Most of the gains in life expectancy in Austria have occurred after the age of 65 but not all of these additional years are lived in good health (Statistics Austria, 2017v). Healthy life years – defined as the years a person is likely to live free of disability – have not significantly changed over the past years in Austria and remain below the EU-28 average (European Union Statistics on Income and Living Conditions (EU-SILC)). In 2015, women could expect to live around 69% of their total life years free of disability (76% on average across the EU-28), while men could expect to spend 74% of their total life years free of disability (EU-28-average 80%) (Eurostat, 2017i). Despite this slightly below-average disability-free life expectancy, 72% of Austrian men perceive their health status as very good or good versus 68% of women (the EU-28 average being 70% and 64% respectively) according to EU-SILC (Eurostat, 2017h) (Table 1.4).

As in many other countries, there is a gap in life expectancy and self-rated health by socioeconomic status. With a life expectancy of 83.3 years in 2014, men with tertiary education were estimated to live 6.8 years longer than men with only compulsory education as their highest level of schooling (76.5 years) (Statistics Austria, 2017a). The gap among women is much smaller with 2.8 years (85.6 years for women with tertiary education compared to 82.8 years for women with compulsory education only) (Statistics Austria, 2017a). More than 80% of Austrians in the highest income quintile reported to be in good or very good health, compared with less than 60% of the population in the lowest income quintile.

TABLE 1.4 Healthy life expectancy and self-perceived health status, 2005–2015 (selected years)

| | 2005 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|------|------|------|------|------|------|------|
| Healthy life years, women | 60.1 | 60.8 | 60.1 | 62.5 | 60.2 | 57.8 | 58.1 |
| % of life expectancy | 73.1 | 72.8 | 71.7 | 74.7 | 71.8 | 68.8 | 69.4 |
| Healthy life years, men | 58.2 | 59.4 | 59.5 | 60.2 | 59.7 | 57.6 | 57.9 |
| % of life expectancy | 76.0 | 76.3 | 76.0 | 76.8 | 76.0 | 72.9 | 73.5 |
| Self-perceived health status as “very good/good”, women (% of ages 15+) | 69.8 | 67.2 | 67.6 | 68.4 | 66.7 | 67.2 | 68.0 |
| Self-perceived health status as “very good/good”, men (% of ages 15+) | 73.8 | 72.0 | 71.3 | 71.7 | 70.5 | 71.9 | 71.9 |

Note: Healthy life years (HLY) refer to the years a person is likely to live free of disability
Sources: EU-SILC, Eurostat, 2017h; Eurostat, 2017i; OECD, 2017e; World Bank Group, 2017

The two main causes of death in Austria are circulatory diseases (such as stroke and myocardial infarction) and malignant neoplasms (cancer), accounting for about two thirds of all deaths (see Table 1.5). A continuous reduction of standardized death rates for the main causes of mortality was achieved for both sexes. The reduction in death rates was less pronounced for malignant neoplasms, in particular for lung cancer. Looking at more specific causes of death, lung cancer is the third leading cause. Different gender trends have been observed with increasing lung cancer death rates for women and decreasing rates for men, which are likely associated with corresponding gender differences in smoking prevalence trends (see Table 1.6). In contrast to the general trend of falling death rates, mortality rates related to diabetes, mental and behavioural disorders and infectious diseases have increased substantially since 2000 (see Table 1.5).

Disease-specific morbidity is not fully documented in Austria, except for diseases subject to statutory reporting requirements such as cancers (Austrian Cancer Registry) (Statistics Austria, 2017b). In absolute terms, incidence of new cancer cases has increased since the 1980s for both women and men, but age- and sex-standardized rates have decreased. Also, prevalence of cancer – the proportion of the population living with cancer – has increased since 2000, especially in women. Cancer prevalence in women is nearly twice as high as in men, even if incidence for men is higher (in

TABLE 1.5 Main causes of death, per 100 000 population (standardized rates), selected years

| | 1980 | 1990 | 2000 | 2010 | 2014 |
|---|----------------|----------------|--------------|--------------|--------------|
| ALL CAUSES OF DEATH | 1 415.7 | 1 153.2 | 953.9 | 787.3 | 735.8 |
| INFECTIOUS DISEASES | | | | | |
| Certain infectious and parasitic diseases | 8.8 | 5.3 | 3.8 | 6.8 | 6.8 |
| of which: tuberculosis | 5.7 | 1.9 | 0.9 | 0.4 | 0.7 |
| of which: HIV/AIDS | - | 0.9 | 0.6 | 0.5 | 0.5 |
| NON-INFECTIOUS DISEASES | | | | | |
| Circulatory diseases | 778.3 | 603.5 | 500.5 | 331.3 | 302.3 |
| of which: ischaemic heart disease | 210.0 | 225.0 | 201.4 | 149.7 | 131.1 |
| of which: cerebrovascular disease | 146.1 | 123.3 | 95.0 | 53.8 | 42.8 |
| Malignant neoplasms | 273.7 | 261.1 | 229.7 | 204.0 | 197.2 |
| of which: colon, rectum and anus | 38.4 | 37.4 | 31.2 | 21.9 | 20.6 |
| of which: trachea, bronchus, lung | 43.6 | 42.4 | 39.7 | 38.3 | 38.1 |
| of which: female breast | 34.9 | 39.3 | 34.6 | 26.9 | 26.1 |
| of which: uterine neck (cervix uteri) | 7.3 | 4.6 | 3.0 | 3.1 | 2.8 |
| of which: prostate | 41.2 | 47.5 | 47.9 | 32.2 | 27.7 |
| Diabetes | 16.3 | 27.6 | 17.1 | 30.3 | 28.9 |
| Mental and behavioural disorders | 3.4 | 3.6 | 4.9 | 9.3 | 14.5 |
| Diseases of the mental system | 11.5 | 15.2 | 20.8 | 17.2 | 11.7 |
| Diseases of the respiratory system | 75.7 | 59.4 | 50.8 | 42.4 | 34.6 |
| Diseases of the digestive system | 76.6 | 56.1 | 42.8 | 32.3 | 26.6 |
| EXTERNAL CAUSES | | | | | |
| of which: transport accidents | 26.6 | 9.4 | 30.5 | 19.4 | 5.3 |
| of which: intentional self-harm | 26.9 | 12.9 | 38.1 | 23.9 | 9.7 |

Source: OECD, 2017f

absolute and age-standardized terms). This is due to lower mortality rates across all types of cancer for women (200.7 per 100 000 women in 2014) than for men (317.8 per 100 000 men in 2014). Women have better survival rates after diagnosis of cancer, which is particularly due to better survival rates for breast cancer (Table 1.6).

TABLE 1.6 Morbidity and factors affecting health status, selected years

| | 1980 | 1990 | 2000 | 2010 | 2014 |
|---|---------------------|--------|---------|---------|---------|
| CANCER | | | | | |
| Prevalence of cancer, women | - | - | 106 364 | 157 152 | 174 347 |
| % of female population | | | 2.57% | 3.66% | 3.99% |
| Prevalence of cancer, men | - | - | 84 266 | 90 427 | 96 419 |
| % of male population | | | 2.17% | 2.22% | 2.31% |
| Incidence of cancer, women (number of new cases) | 15 801 ² | 16 391 | 17 873 | 18 706 | 18 547 |
| Incidence of cancer, men (number of new cases) | 13 547 ² | 14 883 | 19 516 | 20 393 | 20 361 |
| Incidence of cancer, women (per 100 000, age-standardised) | 439.8 ² | 441.3 | 452.1 | 425.4 | 403.3 |
| Incidence of cancer, men (per 100 000, age-standardised) | 618.9 ² | 649.8 | 719.0 | 605.6 | 555.5 |
| Number of cancer deaths, women | 9,431 ² | 9,619 | 9,200 | 9,253 | 9,563 |
| Number of cancer deaths, men | 9,335 ² | 9,607 | 9,493 | 10,419 | 10,829 |
| Mortality of cancer, women (per 100 000, age-standardised) | 265.0 ² | 258.5 | 230.4 | 204.1 | 200.7 |
| Mortality of cancer, men (per 100 000, age-standardised) | 444.4 | 447.0 | 391.4 | 338.9 | 317.8 |
| PREVALENCE OF CHRONIC DISEASES AND HEALTH ISSUES (SELF-REPORTED, ESTIMATION % OF POPULATION) | | | | | |
| Lower-back pain or other chronic back pain | | | | | 24.4 |
| Allergies | | | | | 24.2 |
| Hypertension | | | | | 21.1 |
| Neck pain or other chronic pain at the cervical vertebral column | | | | | 18.5 |
| Arthrosis | | | | | 12.0 |
| Depression | | | | | 7.7 |
| Chronic head ache | | | | | 6.7 |
| Diabetes | | | | | 4.9 |
| Asthma | | | | | 4.4 |
| Chronic bronchitis, emphysema, COPD | | | | | 4.2 |
| Urinary incontinence | | | | | 3.6 |
| Stomach or intestinal ulcer | | | | | 2.5 |
| Coronary heart disease or angina pectoris | | | | | 2.2 |
| Chronic kidney problems or kidney failure | | | | | 1.5 |
| Myocardial infarction or chronic complaints after | | | | | 1.0 |
| Stroke or chronic complaints after stroke | | | | | 0.8 |
| Liver cirrhosis | | | | | 0.2 |

| | 1980 | 1990 | 2000 | 2010 | 2014 |
|---|-------------------|-------------------|-------------------|-------------------|------|
| ABSENCE DUE TO ILLNESS | | | | | |
| Days of absence per employee, women | - | - | 13.0 | 13.0 | 13.2 |
| Days of absence per employee, men | - | - | 14.9 | 12.8 | 12.3 |
| HEALTH DETERMINANTS (LIFE STYLE) | | | | | |
| Smoking prevalence, females (% of adults) | 13.6 ¹ | 17.5 ³ | 18.8 ⁵ | 19.4 ⁸ | 22.2 |
| Smoking prevalence, males (% of adults) | 35.3 ¹ | 34.6 ³ | 30.0 ⁵ | 27.5 ⁸ | 26.7 |
| Girls smoking at least once a week (% of 15-year-old girls) | - | - | 37.1 ⁷ | 29.3 | 15.5 |
| Boys smoking at least once a week (% of 15-year-old boys) | - | - | 26.1 ⁷ | 25.2 | 14.2 |
| Girls first smoking aged 13 or younger (% of 15-year-old girls) | - | - | - | 35.0 | 23.0 |
| Boys first smoking aged 13 or younger (% of 15-year-old boys) | - | - | - | 35.0 | 27.0 |
| Total alcohol consumption (litres per capita aged 15+) | 13.6 | 13.9 ⁴ | 13.2 | 12.1 | 12.3 |
| Obesity in women (self-reported, in % of women) | - | 8.9 ⁴ | 9.1 ⁶ | 13.2 ⁹ | 13.4 |
| Obesity in men (self-reported, in % of men) | - | 8.0 ⁴ | 9.1 ⁶ | 12.4 ⁹ | 16.0 |
| Obese or overweight girls (% of 11-, 13- and 15-year-old girls) | - | - | 9.8 ⁷ | 11.9 | 11.7 |
| Obese or overweight boys (% of 11-, 13- and 15-year-old boys) | - | - | 13.9 ⁷ | 18.5 | 17.3 |

Notes: ¹ 1979, ² 1983, ³ 1986, ⁴ 1991, ⁵ 1997, ⁶ 1999, ⁷ 2001/2002, ⁸ 2006/07

Sources: (Currie 2004, OECD 2017i, Ramelow et al. 2011, Ramelow et al. 2015, Statistics Austria 2015, Statistics Austria 2016b, Statistics Austria 2017e, Statistics Austria 2017p, Statistics Austria 2017r, Statistics Austria 2017s, Statistics Austria 2017x, WHO 2017a, WHO 2017e)

The Austrian Health Interview Survey (ATHIS) – conducted in 2006/2007 and 2014 – provides data on self-reported diseases (Statistics Austria, 2017b). According to the 2014 wave of this survey, nearly a quarter of the population reported having had back pain or allergies in the past 12 months. Hypertension affected about one fifth of the population; 7.7% indicated symptoms of depression; and 5% reported diabetes in 2014 (see Table 1.6). Large inequalities exist in the prevalence of these chronic conditions by education level. Twice as many people with the lowest level of education live with them compared to people with the highest level of education. Self-harm (suicide and attempted suicide) is another important, although decreasing, health problem.

Health status is strongly affected by lifestyle-related health determinants. The estimates of the Institute for Health Metrics and Evaluation reveal that over 28% of the overall burden of disease in Austria in 2015 (measured in terms of disability-adjusted life years) could be attributed to behavioural risk factors, including smoking and alcohol use, as well as diet and low physical activity contributing to high body mass index and other health risks (IHME, 2017). Indeed, with nearly every fourth adult reporting to smoke daily, Austria has the seventh highest smoking prevalence among EU-28 countries. The rate of adults reporting that they smoke every day has remained stable in Austria against an overall declining trend in many European countries. However, the proportion of daily smokers among men has decreased, while smoking prevalence in women increased. Smoking is also prevalent among young people: 23% of 15-year-old girls and 27% of 15-year-old boys reported first smoking at the age of 13 or even younger (2014). Nevertheless, smoking prevalence among young people has decreased considerably: 15.5% of 15-year-old girls and 14.2% of 15-year-old boys reported weekly smoking in 2014 down from 37.1% for girls and 26.1% for boys in 2001/2002 (Currie 2004; Currie et al., 2012; Ramelow et al., 2011; Ramelow et al., 2015).

Alcohol consumption per capita in Austria in 2014 was the third highest in the EU: adults consumed 12.3 litres of pure alcohol per year on average in Austria (EU average 10 litres per year). Alcohol consumption has decreased since the 1980s but has remained stable since the early 2000s. Binge drinking rates, which involves consuming six or more alcoholic drinks on a single occasion, at least once a month over the past year, among Austrian adults (19%) are slightly below the EU average (20%). Self-reported obesity is slightly below EU-28 average but has increased substantially since 2000. In 2014, 13.4% of women and 16.0% of men reported to be obese. Overweight and obesity have also increased considerably among adolescents. For example, the share of overweight or obese boys increased from 13.9% in 2002 to 17.3% in 2014 (see Table 1.6).

Austrian adults are among the most physically active in the EU. About half of 18 to 64 year-old adults (women 49%, men 52%) report regular physical activity (i.e. above 150 minutes per week); and 36% of men and 29% of women report muscle-strengthening activities at least twice per week (WHO, 2017a). However, physical inactivity among 15-year olds is relatively high compared to other EU countries.

Women in Austria eat comparatively healthily, while male eating habits are rather unhealthy. In 2014, 66% of women (EU average 62%) and 45% of men (EU average 49%) reported to consume fruits daily; 55% of women and 40% of men consume vegetables daily, which is similar to the EU-28 average for women, and 4 percentage points below the EU-28 average for men (Eurostat, 2018g). The share of men reporting daily meat consumption (39%) is twice as large as the corresponding share of women (19%) (Statistics Austria, 2015).

Child health has significantly improved since the 1980s in Austria. This is apparent in continuously declining mortality rates for new-borns, infants and children (Table 1.7). The trend is similar in most other European countries and is attributable to improvements in pre- and postnatal care as well as in nutrition. Austria shows a trend of increasing numbers of high-risk pregnancies due to older women giving birth and more in vitro fertilizations (OECD, 2017p). Furthermore, risk behaviour of pregnant women regarding alcohol, smoking and obesity can still be improved (Habimana et al., 2015). Adolescent fertility rates have dropped since the 1980s from 33.4 births per 1 000 women aged 15 to 19 years to 6.8 births in 2015. Maternal mortality has halved since 1990 to 4 deaths per 100 000 live births in 2015 (Table 1.7).

TABLE 1.7 Maternal, child and adolescent health, selected indicators, selected years

| | 1980 | 1990 | 2000 | 2010 | 2015 |
|---|------|------|------|------|------|
| Adolescent fertility rate (births per 1 000 women, 15–19 years) | 33.4 | 20.8 | 13.9 | 9.6 | 6.8 |
| Mortality rate, perinatal (per 1 000 live births) | 14.1 | 6.9 | 6.7 | 5.9 | 5.3 |
| Mortality rate, neonatal (per 1 000 live births) | 9.4 | 4.4 | 3.3 | 2.7 | 2.4 |
| Mortality rate, infant (per 1 000 live births) | 14.3 | 7.8 | 4.8 | 3.9 | 3.1 |
| Mortality rate, under-5 (per 1 000 live births) | 16.3 | 9.5 | 5.5 | 4.4 | 3.5 |
| Maternal mortality rate (per 100 000 live births) | - | 8 | 5 | 4 | 4 |

Sources: Maternal Mortality Estimation Inter-Agency Group 2016, OECD 2017p, WHO 2017e

2

Organization and governance

The Austrian health system is complex and fragmented: (1) responsibilities are shared between the federal and the *Länder* level; (2) many responsibilities have been delegated to self-governing bodies (social insurance and professional bodies of health service providers); and (3) health care financing is mixed, with the state (federal and *Länder* level) and social health insurance (SHI) funds contributing to different parts of the budget.

Health-related legislation is made at the federal level, usually initiated by the Federal Ministry of Labour, Social Affairs, Health and Consumer Protection (BMASGK). The nine states (*Länder*) are responsible for ensuring the availability of adequate hospital capacity, including outpatient care in hospitals, and they finance a major part of inpatient and outpatient care provided by hospitals. Ambulatory (extramural) care is regulated by collective contracts negotiated between self-governing bodies of SHI funds and providers.

Numerous reform attempts have aimed at improving cooperation and coordination in the health care system. In particular, the health reform 2013 has led to the emergence of a new target-based health governance system. Most importantly, a Federal Target-Based Governance Commission (B-ZK) has been established, bringing together the federal level, the *Länder* and SHI funds to jointly define financial targets and health targets for the country. These are then further specified by State Target-Based Governance Commissions that bring together the main actors at the *Länder* level.

The B-ZK has also become the most important actor for joint planning of health care provision structures through the “Austrian Structural Plan for Healthcare”. This framework for integrated planning of all sectors of the health system, including inpatient, ambulatory, and rehabilitation care, is translated by the *Länder* and the regional SHI funds into (nine) Regional Structural Plans for Healthcare. Since 2018, parts of the Austrian- and Regional Structural Plans for Healthcare may be made legally binding. In addition, 10 Austrian Health Targets have been developed under the involvement of a broad range of stakeholders. Following a Health in All Policies approach, these targets are broken down by intersectoral working groups into sub-targets, indicators, concrete actions and benchmarks.

Health information systems remain fragmented although efforts towards increased transparency for the population have been made over the past years. A range of services and sources of information about providers and the quality of services provided is available to patients, and patients have free choice of provider. Nevertheless, choice of provider may be limited by the place of residence, as urban and rural health service structures often differ considerably.

■ 2.1 Overview of the health system

The Austrian health system is complex and fragmented (see Figure 2.1): (1) responsibilities are shared between the federal and the *Länder* level; (2) many responsibilities have been delegated to self-governing bodies (social insurance and professional bodies of health service providers); and (3) health care financing is mixed, with the state (federal and *Länder* level) and social insurance funds contributing to the budget (see section 3.2).

The federal level is primarily responsible for regulating social insurance and most areas of health care provision – except hospital care, where the federal level defines only the basics and the *Länder* are responsible for the specifics of legislation and implementation (see section 2.8). There are 18 SHI funds, including one for each of the nine *Länder*, which are joined together in the Main Association of Austrian Social Security Institutions (*Hauptverband der österreichischen Sozialversicherungsträger*, HVB) (including also the pension and accident insurance funds) (see section 2.3.3). SHI funds collectively negotiate with the professional body of physicians, the Austrian

Medical Chamber (*Österreichische Ärztekammer*) and other health professions about health care provision in the areas of ambulatory (extramural) and rehabilitative care and pharmaceuticals.

Efforts have been made for several years to achieve more joint planning, governance, and financing, by bringing together the federal and the *Länder* level and coordinating these with SHI funds. The establishment of state health funds (*Landesgesundheitsfonds*, LGF) that pool resources for the financing of hospital care at the *Länder* level in 2005 has contributed to more coordination in the financing of hospital care. More recently in 2013, the introduction of the B-ZK and nine State Target-Based Governance Commissions (*Landes-Zielsteuerungskommissionen*), bringing together representatives of the three major public financing agents (federal government, state governments and SHI funds), has improved coordination and governance of the health system (see section 6.1.2). In addition, joint planning of health care (see section 2.5) through structural plans for health care is becoming increasingly important and is starting to overcome its traditional focus on (specialized) hospital care by including also ambulatory (extramural) care planning.

However, despite the establishment of joint governance and planning mechanisms, the constitutional decision-making powers of the various players have remained essentially unchanged. As a result, coordination continues to be a challenge – not only with regard to the provision of inpatient and ambulatory (extramural) care but also with regard to rehabilitation and long-term care (LTC) (see sections 5.7 and 5.8).

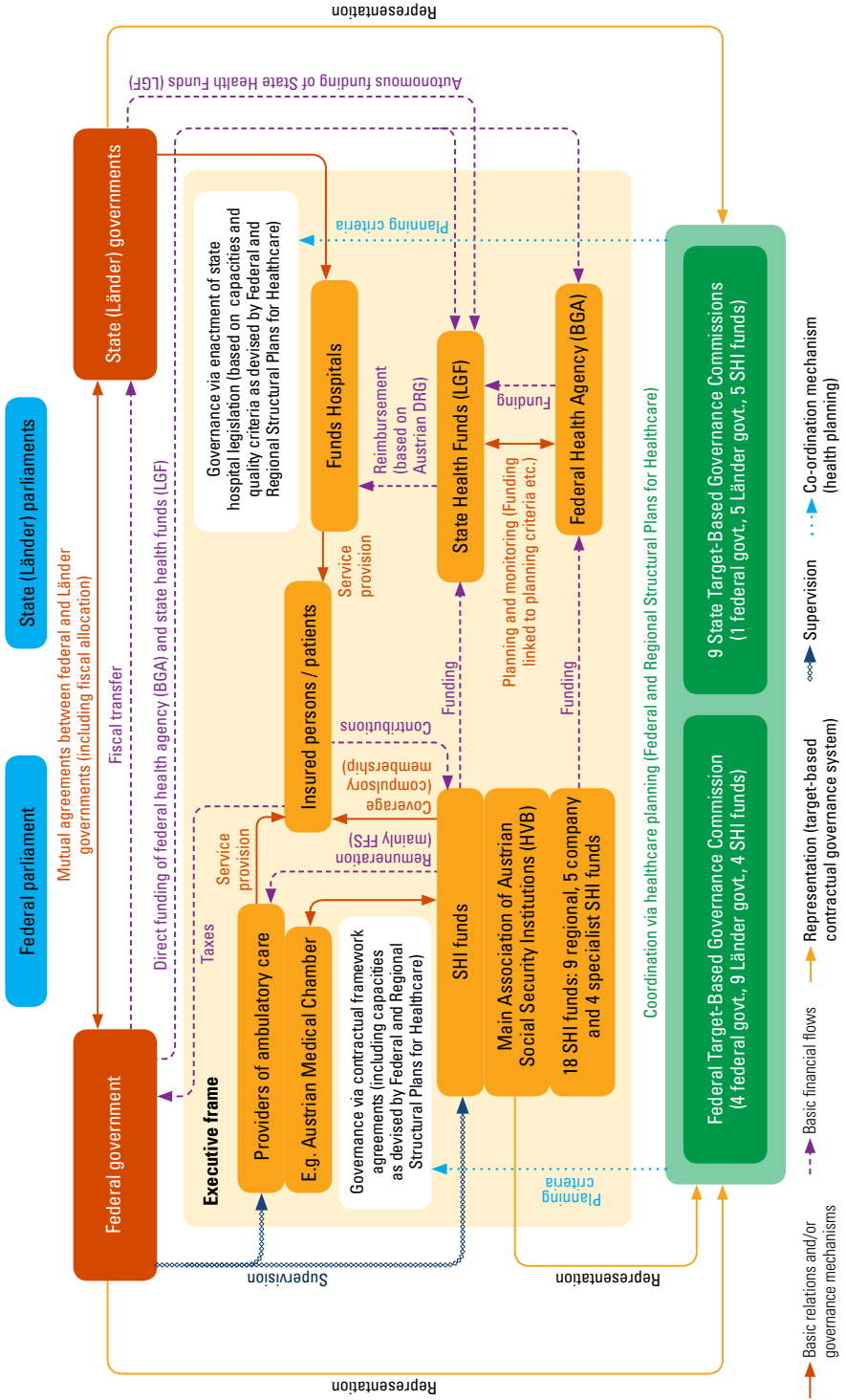
■ 2.2 Historical background

■ 2.2.1 *From the origins of social security until the re-institutionalization of the Austrian health system after the Second World War*

The first forms of social security can be traced back to the late middle ages when basic forms of social protection for selected (privileged) groups of society – free farmers and skilled craftsmen – started to emerge in the form of so-called *Ausgedinge* (a proportion of income saved for retirement or inability to work).

However, the foundations of a formal health care system emerged only

FIGURE 2.1 Organization of the Austrian Health System, 2017



Notes: DRG, Diagnose Related Group; FFS, Fee-for-Service; SHI, Social Health Insurance. Funds hospitals refer to acute care hospitals operating under public law, as well as acute care hospitals operated by non-profit organizations, that receive public funding from state health funds (LGF) (BMGF, 2017q).

Source: Compilation by the Austrian Public Health Institute (GÖG).

during the Austro-Hungarian monarchy between the mid-19th century and the end of the First World War. Two acts from this period were particularly important and have shaped the health system until the present day. The first was the Imperial Sanitary Act of 1870 (Reichssanitätsgesetz, 1870), which has influenced the distribution of competencies between the federal and the *Länder* level by giving the federal level responsibility of sanitary supervision and epidemic hygiene (see also Table 2.1, first and third rows). The second was the Associations Act of 1867 (Vereinsgesetz, 1867), which allowed for the formation of association-based health- or invalidity relief funds, thus laying the legal foundation for the subsequent introduction of formal health insurance funds. In 1887/88, the industrial accident and health insurance scheme for workers was introduced on the basis of self-governing independent funds. By 1918, more than 600 health, pension, and work accident insurance funds had been established on the territory of modern Austria, which were organized along professional groups, *Länder* or other criteria such as language or political ideology.

During the period of the Austrian first republic (1918–1933), efforts focused on organizing these mushrooming insurance funds and to extend social protection and welfare to the unemployed and to other professional groups, such as white-collar workers and farm labourers. At the same time, substantial improvements in general public health were achieved by improving the social situation and housing conditions, in particular in Vienna.

The era of the Austro-fascist corporative state (1933–1938) led to a strengthening of the occupational principle for the organization of social insurance funds. While social protection was extended to the self-employed, benefits (e.g. pension levels and sick pay) were reduced because of financial difficulties due to the world economic crisis.

Following the “*Anschluss*” of Austria to Nazi-Germany in March 1938, German legislation became effective on 1 January 1939. This meant that insurance schemes had to be reorganized in line with the principles of German imperial law. Self-governing bodies were abolished and white- and blue-collar workers’ (regional) health insurance funds were merged. However, the basic organizational structure of social insurance remained intact.

After the end of the Second World War the Social Insurance Transition Act of 1947 (Sozialversicherungsüberleitungsgesetz, 1947) restored the self-governing structures of the social insurance scheme and introduced the HVB as the umbrella organization, spanning Austrian health insurance,

work accident insurance and pension insurance. Also the distribution of competencies between the federal and the *Länder* level in the area of public health was restored through the re-introduction of the constitution of 1930. Numerous responsibilities were delegated to the *Länder* level, in particular in the area of hospitals, nursing homes and social care (see Table 2.1).

TABLE 2.1 Federal constitution and division of power in health care

| TYPE OF DIVISION OF POWER | REFERENCE (AUSTRIAN CONSTITUTION) | RELEVANT AREAS IN HEALTH CARE |
|--|-----------------------------------|---|
| Federal responsibility for legislation and execution | Art. 10 (B-VG 1930) | Social insurance; health care system (general issues) |
| Federal responsibility for framework legislation, responsibility for implementing legislation and execution at the <i>Länder</i> level | Art. 12 (B-VG 1930) | Hospitals and nursing homes; social care |
| responsibility for legislation and execution at the <i>Länder</i> level | Art. 15 (B-VG 1930) | Ambulance service; funerals |

Source: GÖG compilation

■ 2.2.2 *The consolidation of the Austrian health system and reform efforts since 1955*

In 1955, the Austrian Parliament passed the General Social Insurance Act (*Allgemeines Sozialversicherungsgesetz, 1955, ASVG*), which came into force on 1 January 1956. The ASVG was the culmination of efforts made after 1945 to revise and standardize social insurance legislation for blue- and white-collar workers while eliminating the provisions remaining from imperial law. It is the “basic law” of social insurance, encompassing the areas of health, work accidents and pensions insurance for all employees in the fields of industry, mining, commerce and trade, transport, agriculture and forestry, and also regulates health insurance for pensioners of the covered groups.

From 1955 onwards, social insurance coverage was extended progressively, e.g. to farmers (1965), civil servants (1967), and refugees (2005) (see Table 2.2). Consequently, insurance coverage increased from approximately 70% of the population in 1955 to approximately 99.9% in 2017.

TABLE 2.2 Selected major reforms extending health insurance coverage since 1955

| YEAR | LEGISLATION | COMMENTS |
|------|---|--|
| 1955 | General Social Insurance Act (Allgemeines Sozialversicherungsgesetz, 1955) | Regulating health insurance, accident insurance and pensions insurance for all employees (white- and blue-collar) and health care for pensioners |
| 1958 | Act on Pension Insurance for Self-Employed (Gewerbliches Selbständigen-Pensionsversicherungsgesetz, 1957) | Regulating pension insurance for the self-employed |
| 1965 | Act on Health Insurance for Farmers (Bauern-Krankenversicherungsgesetz, 1965) | Regulating health insurance for farmers |
| 1966 | Act on Health Insurance for the Self-employed (Gewerbliches Selbständigen-Krankenversicherungsgesetz, 1966) | Regulating health insurance for the self-employed |
| 1967 | Civil Servants' Health and Accident Insurance Act (Beamten-Kranken- und Unfallversicherungsgesetz, 1967) | Regulating health insurance and accident insurance for civil servants |
| 1970 | Act on Pension Insurance for Farmers (Bauern-Pensionsversicherungsgesetz, 1970) | Regulating pensions insurance for farmers |
| 1978 | Act on Social Insurance for the Self-Employed in Commerce, Trade and Industry (Freiberuflichen Sozialversicherungsgesetz, 1978) | Jointly regulating health insurance, accident insurance and pensions insurance for the self-employed |
| 1978 | Act on Social Insurance for Farmers (Bauern-Sozialversicherungsgesetz, 1978) | Jointly regulating health insurance, accident insurance and pensions insurance for farmers |
| 1993 | Federal Long-Term Care Allowance Act (Bundespflegegeldgesetz, 1993) | Introduction of a seven-stage cash benefit for LTC dependents |
| 2005 | Basic Care Act (Grundversorgungsgesetz, 2005) | Regulating health care for refugees and asylum-seekers |
| 2010 | ASVG Amendment Acts (for instance SVÄG (2010)) | Extension of coverage to several non-standard employment relationships such as marginal part-time workers, quasi-freelancers, the newly self-employed, and temporary agency workers. |

Source: GÖG compilation

Since the late 1970s, numerous reforms have been implemented to improve coordination and governance of the Austrian health care system and to contain expenditure growth. In 1978, the Hospital Cooperation Fund was introduced with the aim of improving coordination of hospital planning and financing between the federal level and the *Länder* level. The establishment of the fund marked the start of a new legal mechanism for health reform as it was established as the result of an agreement between the federal level and the *Länder* under Article 15a of the Federal Constitutional Law (*Vereinbarung gemäß Artikel 15a Bundes-Verfassungsgesetz, B-VG*) (see section 2.3.4). Since

1978, all major health reforms with regard to the hospital sector have been defined as agreements under Article 15a of the Federal Constitutional Law.

In 1997, a new agreement under Article 15a of the Federal Constitutional Law introduced the Austrian DRG system (*Leistungsorientierte Krankenanstaltenfinanzierung*, LKF), the Austrian Diagnosis-Related Group (DRG)-based payment system. At the same time, the Hospital Cooperation Fund was replaced by a Structural Fund at federal level and nine funds at *Länder* level for the financing of hospital care (see Table 2.3). Furthermore, the 1997 agreement introduced a system for national health care planning, starting with the first mutually agreed and binding central Austrian Hospitals and Major Equipment Plan.

In 2005, another reform aiming to increase integration and efficiency of health service provision led to the establishment of health platforms at the *Länder* level, including state governments, SHI funds, municipalities as well as providers and representatives of the federal government. Health platforms were intended to collectively reorganize health care provision at the *Länder* level but as competencies of state governments (for inpatient care) and SHI funds (for ambulatory (extramural) care) remained unchanged, they had only a minor impact on the (re-)organization of health care provision. However, a certain amount of funding was pooled at the *Länder* level to enable projects aimed at strengthening the integration of care between the inpatient and the ambulatory (extramural) sector (“reform pool”).

At the same time, structural and integrated health (framework) planning on the basis of four planning zones and 32 planning districts was introduced at the federal level (Austrian Structural Plan for Healthcare), complemented by detailed health planning at *Länder* level (Regional Structural Plans for Healthcare). As a result of the integrated planning approach, the initial health planning for inpatient services in hospitals was extended to the ambulatory (extramural) sector both in hospitals and physician practices.

Also, the 2005 reform was based on an agreement under Article 15a of the Federal Constitutional Law, but it recognized for the first time the collective responsibility for health service provision of all players, including the SHI funds. Consequently, all players were represented in the then newly established federal bodies for central planning and financing, i.e. the Federal Health Commission (*Bundesgesundheitskommission*) and the Federal Health Agency (*Bundesgesundheitsagentur*, BGA, see section 2.3.4 and 2.5). The BGA replaced the former federal Structural Fund (see Table 2.3).

TABLE 2.3 Federal and state hospital financing funds, 1978 onwards

| | FEDERAL LEVEL | | LÄNDER LEVEL | |
|--------------------|-----------------------------|--|--------------------------|--|
| | FUNDS | DECISION-MAKING BODY | FUNDS | DECISION-MAKING BODY |
| 1978 reform | Hospital Cooperation Fund | <i>Fondsversammlung</i> | n/a | n/a |
| 1997 reform | Structural Fund | <i>Strukturkommission</i> | State Funds | Health Platform (decisions making via votes of state governments only) |
| 2005 reform | Federal Health Agency (BGA) | Federal Health Commission | State Health Funds (LGF) | Health Platform (decisions making via votes of state governments only) |
| 2013 reform | Federal Health Agency (BGA) | Federal Health Commission, Federal Target-Based Governance Commission (B-ZK) | State Health Funds (LGF) | Health Platform (decisions making via votes of state governments only), State Target-Based Governance Commission |
| 2017 reform | Federal Health Agency (BGA) | Federal Target-Based Governance Commission (B-ZK) | State Health Funds (LGF) | Health Platform (decisions making via votes of state governments only), State Target-Based Governance Commission |

Source: GÖG compilation

In the LTC sector, the past three decades have seen some significant steps towards increased harmonization of LTC services across the nine *Länder* and more centralized governance at the federal level. Up until the 1990s, a fragmented system of allowances existed to cover LTC, organized under various schemes and by different stakeholders (Leichsenring, 2017). After protests of disability organizations during the 1980s, inconsistencies across different groups and coverage gaps were brought to public attention and resulted in the adoption of the Federal Long-Term Care Allowance Act (*Bundespflegegeldgesetz*) in 1993* (see Table 2.2). Austria was the first country in Europe to introduce a system of comprehensive and needs-based

* The introduction required the signing of a state treaty and adoption of nine corresponding Long-term Care Allowance Acts at *Länder* level, as constitutional law assigns responsibility for LTC to the *Länder* (Leichsenring, 2017).

cash benefits for people with LTC needs, financed by general taxes (Leichsenring, 2017).*

■ 2.2.3 *The emergence of a target-based health governance system since 2012/2013*

The organization of the current joint decision-making bodies (see section 2.3.4) has been strongly shaped by the 2013 health reform (see section 6.1.2). The reform established a joint, target-based health governance system, bringing together the major players (federal government, state governments, and SHI funds). A Federal Target-Based Governance Commission (B-ZK) was established in 2013 to define targets at the federal level (see Figure 2.1). In 2017, this commission took over the financing tasks of the Federal Health Commission.

The new federal target-based health governance system encompasses both financial targets and jointly defined (public) health targets for health outcomes, as well as processes and structures of services provision. Financial targets are defined in terms of expenditure caps at the *Länder* level, encompassing the expenditure of both, state governments and SHI funds at the *Länder* level (see section 6.1.3). Both financing agents should take on joint responsibility for attaining these targets (ZS-G, 2017).

Since 2017, the responsibilities of the B-ZK and – to some extent also of the State Target-Based Governance Commissions – have been further extended, in particular with regard to competencies of devising structural plans for health care, which are now (at least partly) legally binding.

■ 2.3 Organization

Definition of the legislative framework for the health system takes place at the federal level, where draft legislation is usually initiated by the Federal Ministry of Labour, Social Affairs, Health and Consumer Protection (*Bundesministerium für Arbeit, Soziales, Gesundheit und Konsumentenschutz*, BMASGK). With regard to the provision and financing of hospital care, the *Länder* have to implement and execute the legislation. As a result,

* Since 2011, care allowances are also administered centrally at the federal level.

responsibility for hospital care is shared between both levels, which means that reforms affecting the hospital sector (and hence any major reform effort) are possible only through joint agreements. Therefore, agreements under Article 15a of the Federal Constitutional Law have become the most important mechanism for reform in the Austrian health system (see section 2.2.2). These agreements are concluded between the federal level and the *Länder*, usually in line with the general negotiations on fiscal allocation, as they commonly determine the financial flows for hospital care between the federal level and the *Länder*. The organization of ambulatory (extramural) care is largely delegated to the self-governing bodies of social insurance funds and providers, which engage in collective negotiations about contracts and reimbursement.

More recently, the relevance of joint decision-making bodies at federal and *Länder* level, including representatives of the three main players (federal government, *Länder*, and SHI), has increased considerably since 2013. These bodies aim to overcome the traditional fragmentation of the health system.

■ 2.3.1 Federal level

At federal level, the most important players are the federal parliament as the representation of legislative power, and the BMASGK. Most laws are drafted by the BMASGK. The parliamentary committee on health policy reviews and discusses all bills and proposals relating to health care.

The Ministry responsible for health has changed its name and remit several times during the last decade. The Federal Ministry of Health (*Bundesministerium für Gesundheit*, BMG) has been known by this name since December 2008. In 2016, it became the Federal Ministry of Health and Women's Affairs (*Bundesministerium für Gesundheit und Frauen*, BMGF) and in January 2018 the responsibility of health was merged with social affairs, labour and consumer protection under the new Federal Ministry of Labour, Social Affairs, Health and Consumer Protection (BMASGK).

In addition to its responsibilities for the health care system and public health, the BMASGK is responsible for the supervision of SHI funds and the HVB (including the pension insurance funds), and for the financing and supervision of LTC services.

Various bodies provide advice to the BMASGK when it comes to questions requiring a high level of medical and/or scientific expertise. The most prominent body is the Supreme Health Board, which advises the Ministry on medical questions particularly focusing on the current state of the art of medical science (“lege artis”). Furthermore, various advisory boards have been established, e.g. the Physicians’ Training Commission, the Commission on Tele-Healthcare until 2015, the Board on Rare Diseases, the Board on Patient Safety, the Board on Mental Health, the Board on Geriatric Medicine and the Oncology Board.

In addition, the BMASGK is supported by several institutions:

- The Austrian Public Health Institute (*Gesundheit Österreich GmbH*, GÖG) is the national public health research and planning institute and incorporates the Federal Institute for Quality in the Health Care System and the Austrian Health Promotion Fund (Fonds Gesundes Österreich, FGÖ).
- The Austrian Agency for Health and Food Safety (*Österreichische Agentur für Gesundheit und Ernährungssicherheit GmbH*, AGES), a joint agency of the BMASGK and the Federal Ministry of Sustainability and Tourism. It is in charge of the protection of human, animal and plant health, of medical and drug safety, and of food security and consumer protection along the food-chain.
- The Austrian Federal Office for Safety in Health Care together with the Austrian Medicines and Medical Devices Agency (AGES Medizinmarktaufsicht, a section of AGES) is responsible for market authorization of medicinal products and the assessment of the efficacy and safety of medicinal products and medical devices as well as market surveillance and inspection of manufacturers (see sections 2.8.4 and 2.8.5).
- The Electronic Health Record Institution (ELGA Ltd.) is a joint institution of the federal government, the state governments and the SHI funds. The company is responsible for the further development of the national e-health infrastructure as well as for the coordination of all relevant activities necessary to roll out electronic health records in Austria (see also section 4.1.4).

The Federal Ministry of Finance is also involved in health system governance, in particular with regard to health system financing and is formally represented in the B-ZK (see section 2.3.4). The Federal Ministry of Education, Science and Research (*Bundesministerium für Bildung, Wissenschaft und Forschung*) is responsible for the university education of physicians.

■ 2.3.2 Länder level

At *Länder* level, the state parliaments and the state ministers responsible for health care are the main players with regard to health system governance. Often state ministries combine health with other affairs, such as social protection (including LTC). Except for Lower Austria, where health affairs are distributed among three different ministers, the areas of responsibility of state ministers usually encompass:

- general (public) health issues, including municipal sanitary services,
- inpatient care,
- ambulatory (extramural) care,
- funerals, and
- personnel of health care facilities.

The *Länder* are responsible for ensuring the availability of adequate hospital capacity, and they finance an important part of inpatient and outpatient care in hospitals. Most of the public and private non-profit hospitals are owned by the *Länder*, the municipalities or by non-profit institutions. However, all *Länder* have outsourced the management of their state-owned public hospitals to state-owned companies run under private law – or are in the process of doing so (Vienna).

Furthermore, all *Länder* have established Patient Ombudspersons' Offices as independent institutions. These offices inform patients about their rights and act as mediators and advocates of patients' interests in case of poor-quality care or malpractice. The patient ombudspersons are also represented in the health platforms.

■ 2.3.3 Self-governing bodies

The Austrian social insurance system has always been administered according to the principle of self-government, with the exception of the period 1939–1947. Self-governance of the social insurance system means that insurance-holders and those who pay contributions (employers), service users and health care providers participate indirectly in the administration of the system.

Health care provision is organized through negotiations between the self-governing bodies of SHI funds and providers in all areas of health care provision except hospital care. Self-governing bodies of SHI funds consist of representatives of both employers and employees, and exist at the level of individual SHI funds as well as at the level of the HVB. Self-governing bodies of health service providers are – among others – the medical chambers and the Austrian Chamber of Commerce, as well as representatives of dentists, pharmacists and the voluntary professional associations of other health professionals (e.g. nurses, technical staff).

SOCIAL INSURANCE

Austria has a long history of social protection via the social health insurance (SHI) system (see sections 2.2.1 and 2.2.2). At present, 21 social insurance funds are responsible for health, pension and accident insurance, out of which 18 offer SHI to their beneficiaries. Most persons are assigned to a certain insurance fund by law according to their profession. There is one regional SHI fund for each of the nine *Länder* and five company health insurance funds, the latter are mainly a heritage of the former nationalized industry. Regional SHI funds are responsible for all persons who work for employers in the respective *Länder*. Some specific professional groups though (farmers, railway workers and miners, the self-employed and civil servants) are insured by four specialist insurance funds that provide health insurance and operate under specialist law (see Figure 2.2 and Table 3.4). There are also five company health insurance funds (*Betriebskrankenkassen*) for the employees of five larger companies. Furthermore, some freelance professions (such as physicians, lawyers, architects, civil engineers) are entitled to opt out of the public SHI system (see section 3.3.1).

FIGURE 2.2 Organization of the Austrian Social Insurance Funds, 2017

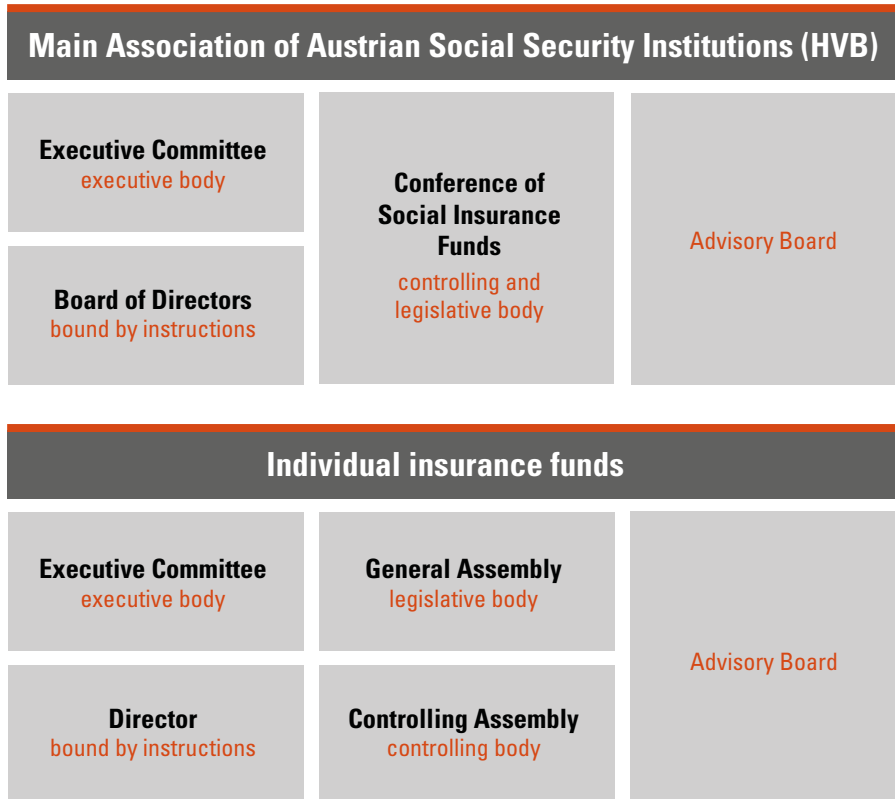
| Main Association of Austrian Social Security Institutions (HVB) | | | |
|--|--|---------------------|-------------------------|
| Pensions Insurance | Health Insurance | | Accident Insurance |
| Pensions Insurance Fund | 9 Regional SHI Funds | 5 Company SHI Funds | Accident Insurance Fund |
| Social Insurance Fund for Persons engaged in Trade and Commerce | | | |
| Social Insurance Fund for Farmers | | | |
| Social Insurance Fund for the Austrian Railway and Mining Industries | | | |
| Insurance Fund for Austrian Notaries | Social Insurance Fund for Public Service Wage and Salary Earners | | |

Note: SHI: Social Health Insurance
Source: HVB, 2017f

All social insurance funds included in Figure 2.2 are legally required to be members of the Main Association of Austrian Social Security Institutions (HVB). The HVB represents the general interests of social insurance funds in Austria and abroad. It coordinates health, accident and pension insurance, produces binding guidelines (e.g. for administrative procedures), legislative suggestions, expert reports and policy statements, and concludes collective contracts with providers (HVB, 2017e).

The HVB is governed by an executive committee consisting of 15 members representing both employers and employees (see Figure 2.3, upper part), which appoints directors to the Board of Directors and gives instructions to the Board. The Board of Directors is composed of four managers, one general director and three deputy directors. The highest controlling and legislative body at the level of the HVB is the conference of social insurance funds (*Trägerkonferenz*), which consists of 37 members. Its members are chairpersons nominated by the individual social insurance funds representing both employers' and employees' perspectives (except for pensioners). Furthermore an advisory board is installed with 18 members, including representatives of the BMASGK and the social insurance funds (HVB, 2018d).

FIGURE 2.3 Organization of the Main Association of Austrian Social Security Institutions (HVB) and SHI funds, 2017



Sources: GÖG compilation (HVB 2012; HVB, 2018d; WGKK, 2017a)

At the level of the individual social insurance funds, the governing structure slightly differs (see Figure 2.3, lower part). Each social insurance fund has three governing bodies, consisting of representatives of employers and employees:

- the General Assembly as legislative body,
- the Executive Committee as executive body,
- the Controlling Assembly as controlling body.

PROFESSIONAL BODIES OF PROVIDERS

The Austrian Medical Chamber (*Österreichische Ärztekammer*) is the federal association of the nine regional medical chambers and represents the

professional, social and economic interests of Austrian physicians based on mandatory membership. The federal and the regional medical chambers negotiate collective contracts (*Gesamtverträge*) with the HVB (on behalf of the corresponding SHI funds) on a regular basis. These specify and regulate the catalogue of services, associated tariffs, payment mechanisms, service volumes, and the number of contracted providers (see section 3.3.4). In addition, the Austrian Medical Chamber is mandated by law to pursue various functions, such as the organization of vocational (lifelong) training, the specification of postgraduate training, or the organization of the examination for being approved as a GP or specialist. Moreover, the Austrian Medical Chamber also runs the physicians' register and is responsible for the quality assurance in GPs' and specialists' independent and group practices via a subsidiary unit: Austrian Society for Quality Assurance and Quality Management (*Österreichische Gesellschaft für Qualitätssicherung und Qualitätsmanagement in der Medizin GmbH*). Outpatient clinics (see section 5.3) are represented by the Austrian Chamber of Commerce in negotiations with SHI funds.

The Austrian Dental Chamber (*Österreichische Zahnärztekammer*) was established in 2006 and is the professional body of Austrian dentists. Previously, dentists had been members of the Medical Chamber. The Austrian Chamber of Pharmacists (*Österreichische Apothekerkammer*) is the professional mandatory representation of Austrian pharmacists, working in pharmacies and/or hospitals. Social protection for self-employed pharmacists is provided by the General Salary Fund of Austrian Pharmacists (*Pharmazeutische Gehaltskasse*) responsible for salaries of employed pharmacists in public or hospital pharmacies and settlement of health insurance prescriptions with SHI funds (Pharmazeutische Gehaltskasse, 2018). The Austrian Midwives' Association (*Österreichisches Hebammengremium*) is a public corporate body and as concerns mandatory membership (since 2014) the most recent professional body for health professionals, even if the establishment of such midwives' committees dates back to 1925 (Hebammengesetz, 1925).

Health professions without legal professional representatives are able to enrol in voluntary professional associations including the Austrian Nurses Association (*Österreichischer Gesundheits- und Krankenpflegeverband*) as well as the Austrian Association of Higher Medical Technical Staff (*Dachverband der gehobenen medizinisch-technischen Dienste Österreichs*), with the latter embracing seven different professions (biomedical analysts,

dietitians, occupational therapists, radiology technicians, physiotherapists, orthoptists and speech therapists). Membership is voluntary and although not stipulated by law, its representatives are involved in various committees as well as decision-making processes.

■ 2.3.4 Joint decision-making committees and funds

Austria has a long tradition of setting up committees in order to enable joint (federal level, *Länder* and SHI funds) financing of hospitals and to enable joint governance of issues, such as health system planning or health promotion. This started with the establishment of the Hospital Cooperation Fund at the federal level in 1978 (see section 2.2.2). While joint financing and planning initially aimed at coordinating activities of the federal and the *Länder* level, joint decision-making bodies later also included representatives of SHI. At the time of writing, the most important joint decision-making committees and funds included the B-ZK, the BGA, the State Target-Based Governance Commissions, and the health platforms at *Länder* level and state health funds (*Landesgesundheitsfonds*, LGF).

Since 2013, the Federal Target-Based Governance Commission (*Bundes-Zielsteuerungskommission*, B-ZK) is the most senior joint committee of the Austrian health system, composed of decision-makers of all three relevant players – technically referred to as the three curiae:

- Four representatives of the federal level: the Federal Minister of Labour, Social Affairs, Health and Consumer Protection, the Federal Minister of Finance plus a representative of their federal ministries (usually cabinet members).
- Four representatives of social insurance funds: the president of the HVB, the chairperson of the conference of social insurance funds plus chairpersons of two SHI funds (usually one of a regional and one of another fund).
- Nine representatives of the *Länder*: the state ministers responsible for health.

Decisions within the B-ZK have to be taken first within the respective curia (i.e. federal level, *Länder* level, or SHI), following defined decision-making

criteria set by each curia in its respective regulations (e.g. majority vote, unanimity). Second, decisions within the B-ZK have to be taken unanimously among the three curiae with each curia having one vote. The B-ZK is responsible for all matters of the target-based health governance system at federal level including expenditure caps as well as (public) health target attainment. In addition, it is the decision-making body of the BGA. Furthermore, since 2017 the B-ZK has the power to declare certain parts of the Austrian Structural Plan for Healthcare legally binding (see Table 6.1). The standing high-level committee (*Ständiger Koordinierungsausschuss*) – itself a body of the BGA (see below) – has a preparatory and coordinating function regarding the B-ZK agendas and supports the implementation of B-ZK decisions (see section 6.1.4).

The Federal Health Agency (*Bundesgesundheitsagentur*, BGA) is a public fund and a separate legal entity for cross-regional and cross-sectoral health planning, governance and financing. Its funds are allocated mostly to hospital financing (see section 3.3.3). The agency is also in charge of administering parts of the Austrian hospital financing system and it is tasked with central documentation matters.

The State Target-Based Governance Commissions (*Landes-Zielsteuerungskommissionen*) are the corresponding joint committees at *Länder* level and again consist of members of the three main stakeholders:

- Five representatives of the *Länder* level: the state minister responsible for health (in some *Länder* also additional state ministers, e.g. responsible for financial affairs) and usually several members of state parliament with a focus on health policy.
- Five representatives of SHI: generally, the chairperson and the deputy chairpersons and further two representatives of the regional SHI fund as well as one representative (also members of the directorate) of other SHI funds.
- One representative of the federal level: a senior civil servant of the BMASGK.

Again, decisions within the State Target-Based Governance Commissions have to be taken first within the respective curia (i.e. *Länder* level or SHI), and the final decision of both curiae has to be unanimous. The federal level has a veto right in cases where a *Länder* decision would contradict

the federal standards e.g. with regard to health targets or federal structural health planning.

The State Target-Based Governance Commissions have been established primarily to execute the target-based health governance system (health targets and expenditure caps) and to enable joint planning. In addition, State Health Platforms exist in all *Länder*, which include not only representatives of the financing agents (*Länder* level, SHI, and federal level) but also representatives of the Medical Chamber, the municipalities, operators of hospitals and patients' ombudspersons. State Health Platforms make decisions about the use of the funds of state health funds (LGF) and they are responsible for the financing system of *Länder* hospitals.

■ 2.4 Decentralization and centralization

The Austrian health system is characterized by regionalized health care provision within a regulatory framework determined at the federal level, and delegation of several statutory tasks to self-governing bodies. Health-related legislation is largely defined at the federal level (e.g. for social insurance, health professionals, pharmaceuticals, medical devices, etc.). However, for hospital care, the federal level defines only basic legislation, whereas the *Länder* are responsible for enacting and implementing legislation at the *Länder* level (Table 2.4). SHI is organized by the self-governing bodies, with the federal government as surveillance-authority. As a result, given the significant number of *Länder* (nine) and SHI funds (18), decision-making authority is distributed among many players.

Responsibility for the provision of health care services is mostly transferred to the *Länder* level (hospital care) and to SHI funds operating at the federal and *Länder* level (e.g. ambulatory (extramural) care, rehabilitation). This includes also the provision of public health services, which is the responsibility of state and municipal health (sanitary) authorities. Furthermore, private entities, such as hospitals, physicians, other health professionals, nongovernmental organizations (NGOs) and welfare institutions, perform important functions in the health system.

In recent years, there has been a trend towards concentrating (centralizing) planning at the federal level through the development of framework plans and targets (see section 2.5), while concomitantly regionalizing

(decentralizing) detailed planning and implementation. In particular, the 2013 health reform has meant a remarkable shift towards more coordination as it led to the establishment of a target-based health governance system under the responsibility of the B-ZK (see also sections 2.2.3, 2.3.4 and 6.1.2). Since then, the trend towards more centralized steering and governance has continued as manifested by the 2017 Federal Target-Based Governance Agreement (*Bundes-Zielsteuerungsvertrag*), which defines the guiding principles as well as priorities for the period 2017–2021 for both the federal and the *Länder* level (BMGF, 2017t). Previously, i.e. between 2013 and 2016, State Target-Based Governance Agreements (*Landes-Zielsteuerungsverträge*) had existed alongside the federal contract to specify targets at the *Länder* level.

TABLE 2.4 Task allocation according to degree of centralization

| CENTRALIZATION LEVEL | GOVERNANCE | FUNDRAISING AND DISTRIBUTION | USE OF FUNDS | PROVISION |
|----------------------|--|--|--|---------------------|
| High | Basic and framework legislation for all sectors including medication, training | Collection and distribution of taxes, determination of SHI contribution levels | - | Disaster management |
| Medium | Agreement under Article 15a of the Federal Constitutional Law, collective contracts | | | |
| | Quality, health promotion, prevention, planning | - | Hospitals, care homes, etc. | Vaccination |
| Low | Hospitals, ambulatory (extramural) care, mobile services, care homes | Collection and pooling of contributions | Public health service, health promotion/ prevention, ambulatory care, provision of medication, mobile services, hospitals, LTC homes | |

Source: Hofmarcher and Quentin, 2013

■ 2.5 Planning

Planning in the Austrian health care system is largely supply driven and is – in accordance with the fragmentation of responsibility – carried out and implemented by a variety of stakeholders. Despite the trend towards more centralized and harmonized planning (as part of the new target-based health governance system), planning still remains fragmented and rather focused on inpatient service provision.

Responsibility for planning of the health care system at the federal level lies with the BGA and its decision-making body, i.e. the B-ZK (see section 2.3.4) (ZS-G, 2017). The Austrian Public Health Institute (GÖG) acts as a facilitator and scientific expert in the planning process at federal level. The outcome of federal planning activities is the Austrian Structural Plan for Healthcare. The most recent version (2017) was developed on the basis of the Federal Target-Based Governance Agreements (2013, 2017) and replaced the 2013 version.

The Austrian Structural Plan for Healthcare 2017 provides a framework for planning of health care provision in all sectors of the health system covering the period up to 2020, including the inpatient and ambulatory sectors as well as rehabilitation care and the interface to the social sector. It defines 32 health care regions and four health care zones and determines the amount of services in the inpatient sector – specified in terms of numbers of admissions per DRG – that will be necessary to meet the needs of the population. The Austrian Structural Plan for Healthcare 2017 also contains an analysis of ambulatory care provision at *Länder* level, includes quality criteria for inpatient and ambulatory (extramural) service provision, and provides guidelines for the further development of the health care system.

At the *Länder* level, nine State Target-Based Governance Commissions are responsible for translating and implementing guidelines and regulations of the Austrian Structural Plan for Healthcare into Regional Structural Plans for Healthcare, according to the Health Reform Act (Vereinbarungsumsetzungsgesetz, 2017). Regional Structural Plans for Healthcare are the basis for determining whether care provided by a hospital is necessary. This is important because SHI funds are legally obliged to contract only with those providers that are deemed necessary (section 2.8.2). All nine *Länder* have a Regional Structural Plan for Healthcare, but they largely differ with regard to structure and health care sectors included. Most of them still only focus on acute inpatient care as reliable performance data on ambulatory (extramural) care remains unavailable.

Planning in the ambulatory sector is challenging because hospital-based outpatient departments as well as registered physicians working in independent ambulatory (extramural) practices, outpatient clinics and group practices, must all be taken into account simultaneously.

Parts of the Austrian- and the Regional- Structural Plans for Healthcare may be made legally binding by means of regulations at federal or the *Länder*

level in the future (Vereinbarungsumsetzungsgesetz, 2017). A new planning agency (*Gesundheitsplanungs GmbH*) in the ownership of the BMASGK, the state governments and SHI will be authorized to adopt regulations for legally binding parts of health care planning (GÖG 2013; GÖG, 2017a; ZS-G, 2017). Legally binding parts of the Austrian Structural Plan for Healthcare refer e.g. to supra-regional health care service departments that provide specialist care (e.g. for highly contagious diseases or severe burns victims), to the Austrian Hospitals and Major Equipment Plan or to capacities for rehabilitation.

Health workforce planning is becoming more important due to general trends such as demographic shifts (concerning population as well as practising physicians), epidemiological changes and technological and economic developments. The location-based staffing plan controls, as part of the collective contracts, the number and distribution of contracted physicians based on need and existing provision by hospitals. These plans are negotiated by the HVB (on behalf of and in consultation with regional SHI funds) and the corresponding regional medical chambers, and are divided according to medical specialties. As a rule, each insured person should have a choice between at least two appropriately qualified providers, which should be located within a reasonable travel distance. The location-based staffing plan should be developed in line with the Regional Structural Plan for Healthcare. The Austrian Structural Plan for Healthcare provides nonbinding targets of the number of physicians in the ambulatory (extramural) sector but they are hardly translated in the Regional Structural Plans for Healthcare.

There is currently no systematic health workforce planning mechanism in place. Only the number of first year students at public medical universities and national targets of the number of training places for GPs are planned. In light of the imminent shortages of health care staff, this may represent a matter of concern. The current reform package (second Target-Based Governance Agreement, 2017–2021) foresees to implement a monitoring mechanism of workforce indicators such as the number of training positions (see sections 6.1.4, 7.3.2 and 7.5.2).

■ 2.5.1 *Risk management and preparedness planning*

Responsibility for risk management in Austria lies primarily with the BMASGK. The 2017 health reform defines provisions for the national

planning of specialized, complex services, including special isolation units for the treatment of patients with (presumed) highly contagious life-threatening diseases (Vereinbarungsumsetzungsgesetz, 2017).

Multisectoral preparedness planning is under the responsibility of the Federal Ministry of the Interior, which collaborates with a number of organizations and institutions including BMASGK, Red Cross etc. It takes the lead in the State Crisis and Disaster Protection Management mechanism, which facilitates cooperation between all federal and state bodies as well as any other organizations involved in disaster relief (BMI, 2017). In case of a disaster, state governments are responsible for among others disaster relief and emergency care. However, they rely on (semi-)voluntary organizations, such as fire brigades, Red Cross, and other rescue organizations, to carry out the operations. In fact, the Red Cross is responsible for ensuring the functioning of water and sanitation. Involvement of the armed forces as well as the civil population is possible. Furthermore Austria collaborates with other countries via bilateral agreements on mutual support in case of disaster (Austrian Red Cross, 2017b).

■ 2.6 Intersectorality

Awareness for intersectorality and its potential benefits is gradually gaining attention in Austria. It is increasingly recognized, that health is influenced by a wide range of determinants, which need to be addressed as part of a Health in All Policies approach (WHO, 2013) as recently demonstrated in the Austrian Health Targets.

Several institutions support intersectoral actions on health, such as the Austrian Health Promotion Fund, which is part of GÖG, and focuses on health promotion activities in different sectors, AGES and the Federal Ministry of Sustainability and Tourism. The Federal Ministry for Transport, Innovation and Technology is in charge of road safety and active mobility (BMVIT, 2011). The Federal Ministry of Public Service and Sport coordinates health-enhancing physical activities. The Federal Ministry of the Interior is co-responsible for the health of displaced persons. The Federal Environmental Office monitors the environment and – among others – its effects on health (Umweltbundesamt, 2016). The *Länder* play an important role in child protection, e.g. by regulating smoking and the use of alcohol (BKA, 2017b).

This section focuses on intersectoral activities taking place at the federal level, especially those led by the BMASGK. However, this overview is not complete because relevant ongoing intersectoral activities are not denominated as such.

■ 2.6.1 *Austrian Health Targets*

More than 40 stakeholders from relevant institutions and civil society were involved in the development of the 10 Austrian Health Targets that were adopted in 2012. The Austrian Health Targets provide a national framework for health targets at *Länder* level and complement already existing *Länder* targets. Partially the definition of national targets was influenced by pre-existing *Länder* targets. So far six out of nine *Länder* have developed their own set of health targets (BMG, 2015d; BMGF, 2016g; BMGF, 2017u) (see section 6.1.1).

The primary goal is to increase the number of healthy life years of all people living in Austria, irrespective of their level of education, income or personal living conditions. The 10 targets cover a broad range of determinants, policy areas and/or population groups (health promotion, working conditions, gender, equal opportunities in health, health literacy, natural resources, healthy environments, social cohesion, children and young people, nutrition, exercise and activity, psychosocial health, health care services). The targets represent a framework for coordinated action until 2032, counting on the commitment of all sectors and institutions involved in the process, and adhering to the guiding principles of a Health in All Policies approach. For each target, an intersectoral working group defines sub-targets, indicators, concrete actions and benchmarks. To date reports have been completed for seven health targets. First updates of these reports have been published for two targets; two further updates are planned for 2018 (BMGF, 2017u).

■ 2.6.2 *National strategies and action plans*

Numerous national intersectoral strategies and action plans have been developed, usually under involvement of a broad range of stakeholders

from different sectors, professional backgrounds and areas of expertise. The BMASGK often leads this development process under cooperation with other ministries. The most recently developed strategies are:

- Austrian Diabetes Strategy 2017 (Schmutterer et al., 2017)
- Austrian Health Promotion Strategy (BMASGK, 2018f)
- Austrian Nutrition Action Plan (BMGF, 2017v)
- National Action Plan on Physical Activity (BMGF, 2017w)
- Action Plan for Women's Health (BMGF, 2017x; Ladurner, 2016b)
- National Action Plan for Antimicrobial Resistance 2017 (NAP-AMR) (BMGF, 2017y)
- Strategy for Dementia 2015 (BMASK, 2017b; BMGF, 2017z)
- Austrian National Action Plan for Rare Diseases (NAP.se) 2015 (BMG, 2015a; BMGF, 2017aa)
- Austrian Addiction Prevention Strategy 2015 (BMG, 2015b; Ladurner, 2016a)
- National Cancer Framework Programme 2014 (BMG, 2014b).

Also the initiative for health in schools is an example of intersectoral action on health, which was led by the Federal Ministry of Education, Science and Research (BMB, BMGF, HVB, 2017).

■ 2.6.3 Health Impact Assessment (HIA)

Health Impact Assessment (HIA) is not mandatory for general legislation nor for public or private investments. However, several strategic documents and/or political decisions refer to HIA, and public institutions have commissioned HIAs in several cases (Gruber and Türscherl, 2012).

A concept for the establishment of HIA in Austria was developed in 2009 and implementation started in 2010 (Horvath et al., 2010). There is a national HIA-network and a pilot-HIA was undertaken on the introduction of a compulsory kindergarten-year in 2011/2012 (Grillich and Griebler, 2012). National examples of HIAs as well as related publications, such as guidelines for practical implementation (BMG, 2013a), are available on the HIA website (<https://gfa.goeg.at/>) (GÖG, 2017a). The new Federal Target-Based Governance Agreement (2017) also aims to foster HIAs.

■ 2.6.4 *Initiatives to reduce inequities in health*

The reduction of inequalities in health has received increasing attention in the past years. Ensuring health equity for all in Austria is one of the Austrian Health Targets (target 2). The promotion of health equity moreover features a guiding principle across all targets (BMGF, 2017u). Various initiatives and strategies were set up in recent years with the aim to reduce inequity in health:

REDUCING HEALTH INEQUITIES IN EARLY LIFE AND WOMEN

The gradual establishment of Regional Early Childhood Intervention Networks (*Frühe Hilfen*) throughout Austria is a successful example for a regional support programme addressing health inequities at source. Early childhood interventions comprise various health promotion services and activities tailored to parents and young children. Special attention is given to socially disadvantaged families and families in particularly stressful life situations. The establishment of regional networks has gradually been advanced since 2011 and was completed in about half of all Austrian districts in 2016 (NZFH, 2017b).

CHILD AND YOUTH HEALTH STRATEGY

The Child and Youth Health Strategy (thematic field 4), aims at promoting health equity via reducing entry barriers to existing welfare programmes. Furthermore, pilots with respect to health literacy e.g. regarding dental health or intercultural communication have been launched. The associated Austrian Child and Youth Health Survey of 2016 provides information on the health situation and living conditions of children and adolescents in Austria and informs the strategy (BMGF, 2017ab).

ACTION PLAN FOR WOMEN'S HEALTH

With the Action Plan for Women's Health, the Federal Ministry of Health launched a joint project in 2015, focusing on women's health promotion

and prevention as well as gender-sensitive health care. In the medium term, actions in the areas of mental health, equal opportunities and women's self-image will be promoted in their implementation. The implementation process is supported by an annual Women's Health Dialogue, which takes place between stakeholders from different policy areas and NGOs (BMGF, 2017x).

NATIONAL HEALTH STRATEGIES AND PROGRAMMES

One of the strategic goals of the National Cancer Framework Programme is equal access to care provision as well as new developments in cancer treatment for everyone, independent of age, gender, origin or socioeconomic background. The programme calls for an analysis of the impact of socioeconomic determinants on the incidence, prevalence and mortality connected to different tumour entities, as well as of the influence of a cancer diagnosis on the socioeconomic living conditions of patients and their close relatives. In addition, a concept should be developed to minimize the impact of socioeconomic determinants and preventing a worsening of socioeconomic conditions due to cancer (BMG, 2014b).

The National Health Promotion Strategy is part of the Austrian health reform and is aligned with the Austrian health target process. The strategy provides a framework for coordinated action and funding in the field of health promotion – especially for the State Health Promotion Funds (*Landesgesundheitsförderungsfonds* – a new financial pot established through the health reform) and the so-called *Vorsorgemittel* (prevention funds). It also defines objectives, quality criteria and priority topics serving as requirements for use of the available funds. One of the requirements is that measures, projects and strategies which promote health equity should be given priority (BMASGK, 2018f).

The Preventative Healthcare Strategy makes provisions for supra-regional health promotion and preventive health care programmes, financed by the BGA with €3.5 million annually. It is jointly implemented by the federal government, the *Länder* and SHI funds. To receive funding, measures must prove to be in line with the National Health Promotion Strategy and aim to reduce health inequities. The current focus is on health equity for children and youth (BMASGK, 2018f).

The Austrian Nutrition Action Plan (2011) aims to implement effective

measures in a transparent and intergovernmental way to prevent over-, under- and malnutrition in all socioeconomic groups, to reverse the rising overweight and obesity rates by 2020 and to prevent diet related noncommunicable diseases (BMG, 2013b; BMGF, 2017v).

OTHER INITIATIVES

Since 1998, Austria has a publicly funded national immunization programme offering the most important, recommended vaccines free of charge to all children and adolescents up to the age of 15 living in Austria. Furthermore, vaccinations against measles, mumps and rubella are offered free of charge for all adults.

Since 1995, the Austrian Anti-Poverty Network (*Armutskonferenz*) connects more than 40 welfare organizations, education and research institutions or social initiatives in order to channel the interests of people in, or at risk of, poverty. Addressing health disparities, the network raises public awareness of existing, self-perceived access barriers of needy people to health care (*Armutskonferenz*, 2017). It is also represented in the plenary of the Austrian Health Targets and is an active member of several working groups on individual targets (esp. “Ensure health equity for all in Austria”). The Handbook Poverty in Austria (Dimmel et al., 2014) provides evidence and policy options for reduction of poverty and health disparities.

A recent study commissioned by the BMASGK based on data collected for the Austrian Health Interview Survey (ATHIS) 2014 investigated connections between health status and social environment in the Austrian context. It confirmed international findings that socially disadvantaged population groups suffer from poor health more often and are more exposed to health risks than those who are more advantaged. This particularly concerns people with low income and the long-term unemployed as well as people with low levels of education or with a migration background (Statistics Austria, 2016a). In the context of the EU “Europe 2020” goals, the Austrian government has implemented the goal “Fighting poverty and social exclusion” as one of the core goals (BKA, 2017c).

At the GÖG, the Task Force Socioeconomic Determinants of Health has been established to facilitate the exchange of stakeholders from research, policy and practice (Braunegger-Kallinger and Ladurner, 2014). The Health

Impact Assessment support unit has a strong focus on health equity taking potential effects of new policies on health equity into account (GÖG, 2017a). Health equity has also been defined as a priority of the Austrian Health Promotion Fund to reduce health inequalities due to socioeconomic disparities (FGÖ strategy on health equity 2021) (FGÖ, 2017b).

■ 2.7 Health information management

■ 2.7.1 *Information systems*

To increase transparency for the population as well as for experts, efforts towards new information systems have been made over the past years. Nevertheless, the health information systems remain fragmented in Austria, which is related to its fragmented organization and financing.

The B-ZK is aiming to measure performance of the entire health system to strengthen governance. A performance measurement framework has been developed and the performance of the health system has been assessed in a baseline report that draws together various indicators from a range of available databases and surveys, e.g. on tobacco consumption, inpatient mortality, patient satisfaction, and life expectancy (Bachner et al., 2018b). Furthermore a mechanism is in place that monitors the 10 Austrian Health Targets which is coordinated with the monitoring processes for the federal targets (see section 6.6.1) and for national health strategies (BMGF, 2017u).

INPATIENT DATA

For the inpatient sector, comprehensive information is available on service provision and financing. Hospitals are required to provide a minimum basic dataset for each admission, including information on age, gender, procedures (coded according to a national procedure catalogue) and diagnoses (coded according to the International Classification of Diseases, ICD-10). Furthermore, hospitals are obliged to report general information, such as number of beds, quantity and qualifications of personnel, availability of equipment, number of inpatient stays etc., as well as aggregated data on costs according to defined standards. Data are integrated in a non-public database

(*Diagnosen- und Leistungsdokumentation der österreichischen Krankenanstalten*) (BMGF, 2017ac) that is accessible for the main stakeholders (BMASGK, SHI funds, *Länder*). Selected contents (e.g. on utilization, diagnoses and procedures) are published online by the BMGF/BMASGK (BMGF, 2017k).

Since 2013, inpatient quality is assessed by the Austrian Inpatient Quality Indicators (A-IQI) on the basis of administrative data with more than 200 indicators which are focused on outcome quality, e.g. inpatient mortality of patients with cerebral infarction or share of patients with complications following cystectomies (BMGF, 2016a). However, transparency remains limited because indicators are not publicly reported at hospital level.

Hospitals have to fill in questionnaires on quality management activities at regular intervals via a web-based quality platform (*Qualitätsplattform 3.0*) (BMGF, 2017g). In addition, hospitals have to report on quality management activities at regular intervals via questionnaires on this platform (BMGF, 2017ad). The information is published on two websites together with information e.g. on the number of procedures or patients treated (<http://www.spitalskompas.at> and www.kliniksuche.at). In addition, non-public quality registers exist for selected medical areas, e.g. adult heart surgery, stroke, pacemakers, premature birth (privately financed), cancer.

AMBULATORY CARE DATA

For the ambulatory care sector, information systems are less well developed, but efforts are ongoing to improve information availability on care quality and diagnoses (e.g. via implementation of the electronic health record and the launch of the Austrian health portal, see also section 4.1.4). Yearly statistical handbooks provide detailed information on physician charges based on the fee scale (*Honorarordnung*) and on financial expenditure statistics published by SHI funds (HVB, 2016c; HVB, 2017b; HVB, 2017k). However, outpatient services provided by hospitals are not included in these statistics. In addition, the reporting of diagnoses remains incomplete in the ambulatory (extramural) care sector. A nationwide uniform catalogue of ambulatory services provided by both ambulatory (extramural) physicians and hospital outpatient departments has become mandatory in 2017 with a 2-year transition period to enable full rollout until 2019 (see section 3.7.1). Pilots of this catalogue date back to 2007 (BMASGK, 2018e).

SURVEY DATA

The Austrian Health Interview Survey (ATHIS) plays an important role in health reporting and hence for the target-based health governance system of the health reforms 2013 and 2017. It is performed at regular intervals of about five years, provides information on health status, health behaviour and health service utilization and is representative for all people living in private households in Austria aged 15 years or older. In 2014, about 16 000 persons (15 years and above) participated in the survey (Statistics Austria, 2015).

The Patient Satisfaction Survey that is regularly performed at national level provides information about overall satisfaction with the health care system and specific services. In 2015, 20 000 patients (14 years and above) of 12 insurance funds participated in the survey focusing on quality and on coordination between inpatient and ambulatory (extramural) care (Leuprecht et al., 2016a). This survey is conducted by the Federal Institute for Quality in the Health Care System and the first survey was commissioned in 2010/2011 (Gleichwelt et al., 2011). Further frequently used data sources for health reporting are the HSBC (Health Behaviour in School-Aged Children) survey, EU-SILC, death statistics or cancer statistics, to only name a few.

Data on children's health status and health behaviour is collected by the Health Behaviour in School-Aged Children Study (HBSC) that assesses self-reported health and health behaviour of students aged 11, 13, 15 and 17 years. Since 1986, it is conducted every four years by a multidisciplinary network of researchers in 42 countries. In Austria, the study is conducted by the Institute for Health Promotion and Prevention on behalf of the BMASGK (Ramelow et al., 2015).

HEALTH INFORMATION REPORTING

Information collected in the various databases is published in different reports and on different platforms. Health information reports for population groups (e.g. women, men, children) as well as for certain sectors of the health care system (e.g. oncology, palliative care) are published at federal, *Länder* and municipal level by using the above-mentioned data. In 2003, the platform for health reporting (*Plattform Gesundheitsberichterstattung*) was established to bring together relevant actors that play a role in health reporting in Austria.

In biannual meetings organized by the Austrian Public Health Institute representatives of the BMASGK, the *Länder* and the SHI funds discuss and formulate recommendations for the health reports (BMGF, 2017ae). National health expenditure data are collected by the National Statistical Institute (Statistics Austria) according to the OECD System of Health Accounts (SHA) (OECD, Eurostat, WHO, 2011).

GÖG also collects expenditure information and provides an overview on health expenditure by sector and by *Land* (sum of SHI and *Länder* expenditure on *Länder* level). This is part of the financial target monitoring task of GÖG performed for the B-ZK (see section 6.1.3). Reports are published twice a year on the BMGF/BMASGK homepage (BMGF, 2017af). Furthermore, Austrian data on health expenditures, service utilization, and quality is included in international health information systems, e.g. of OECD, WHO and Eurostat.

■ 2.7.2 Health technology assessment

Health technology assessment (HTA) is not yet systematically incorporated into public decision-making in Austria, for example, concerning the inclusion or exclusion of technologies from the benefits basket. However, there is political will to strengthen the use of HTA in decision-making to support evidence-based medicine and evidence-based public health (ZS-G, 2017). Ongoing activities in the area of HTA are guided by specifications of the 2010 HTA strategy (e.g. on the selection and prioritization of topics) (GÖG, 2010a), and the national methods manual that HTAs should follow (BMGF, 2017ag; GÖG, 2012).

Various institutions perform HTA in Austria (GÖG, 2017b), including the Austrian Public Health Institute (GÖG), the Ludwig Boltzmann Institute for Health Technology Assessment (LBI-HTA), the University for Health Sciences, Medical Informatics and Technology and the department for evidence-based economic health care at the HVB.

However, in the absence of a legal framework, coordination of HTA activities in Austria remains a challenge. International cooperation is key for a small country like Austria, and all of the above-mentioned institutions actively participate in the European HTA network (EUNetHTA, 2017).

■ 2.8 Regulation

As described in section 2.1 Overview of the health system, the Austrian health system is shaped by the division of responsibilities resulting in a complex and fragmented system. Competencies are shared between the federal and *Länder* level, where the most important actors are the federal and state governments with the respective ministries responsible for health. With respect to the health care system, many responsibilities have been delegated to self-governing bodies (e.g. SHI funds). With the 2005 health reform the BGA and the LGFs were created and have an important role in development of quality rules and guidelines.

Responsibility and financing of ambulatory care differs depending on whether services are provided by hospitals on an outpatient basis – in Austria considered to be part of the intramural sector – or whether they are provided by physicians outside hospitals – referred to as the ambulatory (extramural) sector.

■ 2.8.1 Regulation and governance of third-party payers

The two main third-party payers in Austria are the SHI funds and the state governments. The federal government, i.e. the BMASGK, is responsible for the supervision of SHI funds and the HVB. The Federal Ministry of Finance is entitled to send a representative to governing body meetings of the pension insurance funds and the HVB to protect financial interests of the federal government.

The BGA determines the mechanisms of financial equalization and distributes tax money and the lump sum from SHI funds to the LGF according to legally predefined proportions. Management by the BGA is subject to control by the audit office. At *Länder* level, the LGF manage the payment for public hospitals (see sections 2.3.4 and 3.3.3). According to constitutional law, the federal and the nine state governments are autonomous with respect to administration and legislation of the LGF (BMF, 2017).

The most important legal document regulating social insurance is the General Social Insurance Act (ASVG) which defines – among others – the administrative structures of insurance funds, beneficiaries, benefits baskets, basic relations with service providers, relations between the insurer and the

insured as well as financing (Allgemeines Sozialversicherungsgesetz, 1955). A number of specialist insurance laws (GSVG, BSVG, B-KUVG) regulate insurance for specific groups of the population (self-employed, farmers and civil servants) (see section 3.3.1).

Other legal frameworks regulating availability and financing for social and health care facilities are the financial equalization measures and the agreements between the federal government and the *Länder* in accordance with Article 15a of the Federal Constitutional Law. Social security contributions are set nationally by Parliament. The Financial Equalization Act (Finanzausgleichsgesetz, 2017) regulates pooling and intergovernmental transfers of direct and indirect taxes between the federal level, the *Länder* and municipalities. The Financial Equalization Act primarily concerns distribution of revenue for hospital care and is a result of negotiations between federal, *Länder* and municipality level, usually in force for a period of four years. The most recent Act was negotiated in 2016 and is in force for the period 2017–2021 (Finanz-Verfassungsgesetz, 1948; Finanzausgleichsgesetz, 2017). In addition, the intra-state agreements under Article 15a of the Federal Constitutional Law (*Vereinbarungen gemäß Artikel 15a B-VG*) are central for financing of hospital care. They regulate the distribution of funds raised from various taxes and, different to the Financial Equalization Act, reallocate funds of the SHI. These agreements under Article 15a are subject to negotiations between the federal and the *Länder* level and are usually valid for a period of four years (see section 2.3).

Since 2013, the target-based health governance system stipulates financial targets (a budget cap) for public health expenditures in Austria, i.e. for spending by *Länder* and SHI funds. The national budget cap is defined by according law and agreements under Article 15a of the Federal Constitutional Law and it is broken down for each *Land* and SHI fund. The budget cap was part of debt reduction efforts to meet fiscal targets of the EU Maastricht criteria defined within the consolidation package (*Stabilitätspakt*) for the period 2012–2016 (European Central Bank, 2018) (see section 6.1.3). The cap is linked via agreements under Article 15a of the Federal Constitutional Law regarding general fiscal targets (Maastricht criteria and consolidation package), and consequently the sanction mechanisms of the consolidation package apply also to the health sector. This means that breaching financial targets might violate the agreed Maastricht criteria and may result – after a decision by a dispute settlement body – in penalty payments for third-party

payers. However such penalties have never been applied so far. The Austrian Public Health Institute monitors the financial targets twice a year in public reports.

Municipalities play only a minor role as public payers in the health care system and are therefore not involved in financial governance and regulation. Nonetheless, municipality participation in hospital financing is significant in some *Länder*. In this context, some *Länder* implement taxation legislation as part of their responsibilities and oblige municipalities to make resources available. The range and type of this participation by municipalities in the hospital sector varies significantly in its organization but information about it is sparse (Hofmarcher and Quentin, 2013).

Private health insurers, unlike the public SHI system, have no obligation to take on any individual as a customer. This type of insurance is based on a freely arranged, voluntary agreement (see section 3.5.3). Private health insurance firms are regulated by the financial services regulator.

■ 2.8.2 Regulation and governance of providers

Establishment and operation of hospitals and outpatient clinics is regulated jointly by the Federal Hospital Act (*Krankenanstalten- und Kuranstaltengesetz*, KAKuG, 1957/2018) and relevant implementing legislation at *Länder* level. The *Länder* are responsible for the licensing of hospitals, outpatient clinics and group practices. To obtain a license, prior needs assessment on the basis of the Regional Structural Plans for Healthcare is mandatory if services are to be reimbursed by SHI funds. Also, a statement of the State Health Fund is required regardless of whether the hospital or outpatient clinic is included in the Regional Structural Plan for Healthcare. Providers have to submit an application with the intended spectrum of services to be performed, the planned volume of services, and any investment plans. The administrative approval of the license by the state government depends on assessments from relevant parties (e.g. SHI fund, regional medical chamber). For outpatient clinics, a needs assessment by GÖG (or another comparable research institute) is obligatory. Needs assessment is not required for providers that only offer services that are not reimbursed by social health insurance funds.

In addition, a special designation process exists for “national centres of expertise” (*nationale Expertisezentren*). Designation as a national centre of

expertise by the B-ZK is a requirement for full participation in the European Reference Networks (see also section 2.9.6). Providers have to obtain consent of all relevant players, such as the state governments, prior to application (BMGF, 2017p).

In ambulatory (extramural) care, any licensed physician registered with the Austrian Medical Chamber has the right to open a practice (freedom to practice). However, only (single or group) practices included in the location-based staffing plan and with an SHI contract are allowed to bill services to SHI funds. The conditions of practice are regulated through collective contracts, which are negotiated between the HVB and regional medical chambers according to the sixth part of the ASVG (Allgemeines Sozialversicherungsgesetz, 1955). Subsequently, each individual SHI fund must agree to the contract (Article 341, paragraph 1, ASVG). The involvement of the HVB is intended to ensure that contracts are established on the same basis for all health insurance funds. The Austrian Medical Chamber can agree on a contract on behalf of the regional chambers with their consent. The collective contracts stipulate among others the rights and responsibilities of contracted providers, service volume, the fee schedule, and the location-based staffing plan. Based on the collective contracts, providers of ambulatory care conclude individual contracts with SHI that must meet the criteria of the collective contracts (see sections 2.5 and 3.3.4).

Although the Austrian Structural Plan for Healthcare includes planning of ambulatory care, it remains the responsibility of *Länder* and SHI funds to include this area of provision in their Regional Structural Plans for Healthcare. However, ultimately, the number of physicians is determined by the contracts between insurance funds and physicians or group practices that are handed out in accordance with the location-based staffing plan (see section 2.5).

Since 2001, physicians are allowed to form group practices. Some of the newly founded group practices seem to primarily serve the purpose of practice takeover (e.g. from father to son). Group practices have to fulfil several characteristics, such as the legal form of a collective or limited partnership or self-employed co-owners (possibility of different specialities). Furthermore, like solo practices, group practices are not allowed to employ physicians; however, they are allowed to employ a limited number of other health care professionals. The latter is currently discussed in the context of the regulation on primary health care. In contrast to initial planning, the recent

Primary Health Care Act (Primärversorgungsgesetz, 2017) failed to create the option to employ physicians in independent practices (see section 5.3).

QUALITY ASSURANCE REGULATIONS FOR HEALTH CARE PROVIDERS

Quality assurance in hospitals, rehabilitation clinics and outpatient clinics is mainly regulated by the Federal Hospital Act (KAKuG) and the Federal Act on the Quality of Health Care (GQG, 2004). Based on the Federal Act on the Quality of Health Care several national quality standards exist, e.g. for patient blood management (BMGF, 2016b), hospital hygiene (BMG, 2015c), admission and discharge management (BIQG/BMG, 2012) and preoperative diagnostics (BIQG/BMG, 2011). Every owner or operator is obliged to implement a quality assurance system, which includes among others the establishment of a quality assurance commission and the participation in regular national quality reporting. The Federal Hospital Act also regulates the mandatory sanitary supervision, which includes unannounced quality inspections focusing mainly on hygiene criteria. Furthermore, the Austrian Structural Plan for Healthcare includes relatively detailed standards for the required quantity and quality of personnel and equipment at the facilities. In addition, quality of care is systematically assessed on the basis of A-IQI (see also section 2.7). If measured indicators suggest potential quality problems at the level of individual hospital departments, a peer review procedure is initiated to identify irregularities and options for improvement. For the peer review three to four chief physicians (from at least two different medical specialties) evaluate 20 hospital cases within one day based on e.g. timeliness and adequacy of diagnostics and treatment, use of clinical guidelines, supervision during treatment, cooperation across disciplines, documentation and thereafter provide recommendations and a protocol.

In the ambulatory (extramural) care sector, the Quality Assurance Regulation of the Medical Chamber (ÖÄK and BMG, 2012) defines quality criteria for independently practising physicians and group practices and regulates the evaluation process. In 2014, minimum quality management requirements for health care providers were released by the Federal Ministry of Health defining the minimum standards for quality management that have to be fulfilled by any health care provider (see Table 6.3). In addition,

a general commitment to provide high-quality care is included in all health care professional laws.

Mandatory quality checks are performed by the Austrian Society for Quality Assurance and Quality Management in Medicine according to the Physicians' Act (Ärztegesetz, 1998) and results are regularly published in quality reports. Furthermore, the first Federal Target-Based Agreement aims at improving quality reporting (processes and outcomes) in the entire ambulatory (extramural) care sector (including also non-medical health professions) in the next years (ZS-G, 2017) (see section 6.1.3). In this context, quality indicators for the ambulatory care sector (Austrian Outpatient Quality Indicators) have been developed based on the A-IQI-project, and were measured in some selected regions. They will be applied nationwide in the next few years.

In 2016/17, the Federal Ministry of Health in Austria revised a quality strategy for the Austrian health care system, which had originally been published in 2010. The strategy aims to ensure equal access to the best possible treatment through coordinated measures in the areas of patient safety, quality of structure, process and outcome, risk management and training and further education.

An important development to improve quality assurance is the planned implementation of cross-sectoral quality measurement by 2021, which is supported by the stepwise implementation and rollout of diagnosis coding in ambulatory settings (see section 3.7.1). Furthermore, quality standards for certain chronic diseases are being developed (e.g. diabetes, stroke) which aim to assure that patients receive better coordinated and integrated care across different settings (ZS-G, 2017).

■ 2.8.3 *Registration and planning of human resources*

All health care professions are subject to regulations put in place by federal legislation. Regulation of health care professions covers training, career path, nomenclature, rights to practise, practice obligations and disciplinary procedures. To practise it is necessary to have the appropriate permission. Obtaining this requires successful completion of the appropriate (legally defined) training, legal capacity to practise as well as being able to prove your own adequate state of health and trustworthiness.

Certain health care professions require compulsory entry in a public register before starting to practise. For physicians, pharmacists, midwives and dentists, the registers are run by their legally appointed professional bodies. The Austrian Medical Chamber is the responsible authority for the recognition of professional qualifications for physicians and also the registry for licensed physicians in Austria (including physicians in training) based on the provision of §27 (2) of the Austrian Physicians' Act (Ärztegesetz, 1998). Before starting a medical activity in Austria every physician is obliged to register with the Austrian Medical Chamber. The registration takes place in the *Land* of the medical activity.

Compulsory registration has been progressively expanded to cover almost all types of health professionals practising in Austria. Since the second half of 2018, registration into the Health Care Professional Register run by the GÖG has become compulsory also for several health care professional groups that had previously been exempted, such as LTC and nursing professionals, physiotherapists, and speech therapists (see section 4.2.1).

Admissions to exercise health care for foreigners in Austria are based on the European Directive on the Recognition of Professional Qualifications (Directive 2005/36/EC) and apply to citizens of the European Union, of the European Economic Area as well as to Swiss and certain third country nationals (BMGF, 2017ai). Practising without prior recognition or employing such persons is an administrative offence, punishable by a fine and may also be subject to personal liability under criminal and civil law.

All health professionals in Austria are required to regularly update their training based on the latest developments and findings, as regular continuous training is considered a major quality aspect (BMGF, 2017aj) (see also section 4.2.3).

■ 2.8.4 Regulation and governance of pharmaceuticals

Regulation of pharmaceuticals is a federal responsibility. The most important piece of legislation is the Medicines Act (Arzneimittelgesetz, 1983), which contains fundamental definitions as well as regulations on market authorization procedures, manufacturing and distribution of pharmaceuticals. Further important legal frameworks are set out in the Price Act

and in regulations on pharmacy and wholesale remuneration. Legal provisions on pharmaceutical reimbursement in the ambulatory care sector are covered by the ASVG. The Hospital Act contains regulation on hospital pharmacies and medicines stock in hospitals. In addition, EU legislation is of particular relevance with regard to the marketing authorization of medicines (Regulation 2004/726/EC), while regulation of pricing and reimbursement is left to individual Member States (under the condition that procedural rules are conform with the so-called Transparency Directive (Council Directive 89/105/EEC).

According to EU regulations, there are different pathways for manufacturers to obtain a marketing authorization: (1) the centralized authorization by European Medicines Agency (EMA), and (2) the mutual recognition or decentralized authorization procedures. Under the centralized authorization procedure, pharmaceutical manufacturers may obtain a marketing authorization from EMA that is valid in all EU Member States as well as in Iceland, Liechtenstein and Norway. Under the decentralized procedure and under the mutual recognition procedure, the marketing authorization of one Member State is recognized also in one (or several) other Member States on the basis of the evaluation of the first (the reference) Member State, where a manufacturer requests the authorization.

The Federal Office for Safety in Health Care (*Bundesamt für Sicherheit im Gesundheitswesen*, BASG) is the most important national authority (subordinate to the BMASGK) for the execution of laws related to market access and safety of pharmaceuticals and medical devices. Its tasks include granting of marketing authorizations, inspection of pharmaceutical firms, and assessment of medicines and medical devices which are already on the market regarding efficacy, adverse reactions, production, shipment and storage etc. (Vogler et al., 2013). The Austrian Agency for Health and Food Safety (*Österreichische Agentur für Gesundheit und Ernährungssicherheit GmbH*, AGES) – a limited liability company owned by the Republic of Austria – and, in particular, its subdivision AGES MEA (Austrian Medicines and Medical Devices Agency) supports the BASG in its work through assessments, quality control of pharmaceuticals and pharmacovigilance.

National marketing authorization of pharmaceuticals is based upon an assessment of efficacy, safety and quality. It is awarded for an initial time period of five years. However, as there is a high level harmonized marketing authorization for pharmaceuticals in the EU (centralized, decentralized and

mutual recognition procedure), national authorization only plays a minor role (GÖG, 2010b). Re-assessments though are performed for all pathways of marketing authorizations after five years and for any variation in pharmaceuticals (BASG, 2017e).

Following the marketing authorization, the BMASGK, advised by experts of the prescription commission (*Rezeptpflichtkommission*), decides about the prescription status of the medicine in accordance to the Prescription Act (*Rezeptpflichtgesetz*, 1972). Most pharmaceuticals (more than 85% of all authorized medicines) in Austria are prescription-only medicines (BASG, 2018).

Advertisement of pharmaceutical products in Austria is regulated by the Medicines Act. It is the responsibility of BASG, along with municipalities, to monitor advertisement of pharmaceuticals. Advertising aimed at consumers is not allowed for prescription-only medicines. However firms can make product-specific information available, if there is a demand from patients. Nonprescription medicines (over-the-counter medicines, OTC) are also sometimes subject to an advertising ban, if they are on the positive list (*Erstattungskodex*) or if they have the same brand name as a prescription-only medicine. Other OTC products may be advertised via any medium (Hofmarcher and Quentin, 2013).

Since 2016, financial flows from pharmaceutical manufacturers to doctors and medical institutions have been published on a voluntary basis (CORRECTIV, 2017). A study in 2015 showed that physicians tend to be reluctant to release the amounts of payments they have received from pharmaceutical companies; only about one in five physicians make these payments transparent (Mantsch et al., 2016).

REGULATION OF PHARMACIES

Community pharmacies are the main dispensaries of both prescription-only medicines and nonprescription medicines. The Pharmacy Act regulates the establishment and ownership of community pharmacies in Austria (*Apothekengesetz*, 1906).

The operation of a community pharmacy is, in accordance with the Pharmacy Act, subject to license from the authorities that require certain individual conditions (e.g. pharmacy degree from an European Economic

Area country, minimum of five years professional experience in a pharmacy) as well as material preconditions (e.g. minimum size of operating space) to be fulfilled. However, the most important barrier for the establishment of a new pharmacy is a needs assessment in accordance with the Pharmacy Act as there must be a minimum distance of 500 metres between two pharmacies, and a minimum customer base of 5 500 people.

A further requirement for establishment of a new community pharmacy is that a dispensing physician does not operate an in-house pharmacy in his or her practice within the municipality. Nonpharmacists may only own up to 50% of a pharmacy. Pharmacists may have only one pharmacy license and may only run one pharmacy, but they may open one additional branch pharmacy (Apothekengesetz, 1906; Langebner, 2017; Österreichische Apothekerkammer, 2017; Zimmermann and Vogler, 2012).

Drugstores may only sell a restricted range of nonprescription medicines as for example herbal teas, cosmetics or vitamin products. In line with EU legislation (Directive 2011/62/EU), the sale of nonprescription medicines on the Internet by registered Austrian community pharmacies has been allowed since June 2015 (Österreichische Apothekerkammer, 2017; Zimmermann and Vogler, 2012). The BASG is responsible for registration of all authorized mail-order pharmacies in Austria and their compliance with the legal requirements for the distribution of medicines by means of distance sales (BASG, 2017a; BASG, 2017b). The sale of prescription-only medicines through the Internet remains prohibited.

PRICING AND REIMBURSEMENT OF PHARMACEUTICALS

The responsibility for the pricing of pharmaceuticals lies at federal level with the BMASGK and is regulated by the Price Act and the ASVG. The Ministry, advised by the Pricing Committee, calculates and sets maximum (ex-factory) prices for medicines. For medicines included in the positive list of SHI reimbursable pharmaceuticals for use in the ambulatory (extramural) care sector (i.e. the Reimbursement Codex, *Erstattungskodex*), the maximum price is set at EU average or below. The HVB decides about the inclusion of a pharmaceutical in the positive list based on advice provided by the Pharmaceutical Evaluation Board (*Heilmittel-Evaluierungskommission*). This reimbursement decision is based on an evaluation of alternative medicines

for the indication in question and the (added) therapeutic benefit. The evaluation is performed in three stages: first pharmacological evaluation, second medical-therapeutic evaluation, and third economic evaluation (BMGF, 2017a; Mandlz, 2015; Österreichische Apothekerkammer, 2017; Vogler et al., 2013; WHO, 2017d).

Of the total number of 9 182 medicines (including homeopathics) with a marketing authorization in Austria (counting different pharmaceutical forms and dosages) 7 372 medicines were contained in the positive list in January 2018 (counting different pharmaceutical forms, different dosages and different pack sizes) (HVB, 2018e; BASG, 2017c).

For medicines not included in the positive list of the ambulatory (extramural) care sector, pharmaceutical companies are, in principle, free to determine the ex-factory price. However, since April 2017, new pricing regulations apply to these medicines if their annual sales (during 12 months, not necessarily during a calendar year) at the expense of Austrian SHI funds exceed €750 000. As soon as sales of a particular pharmaceutical (incl. all pack sizes and dosages) reach this threshold, the HVB has to notify the Pricing Committee, which will then determine an EU average price within eight weeks. If the determined EU average price is lower than the ex-factory price, the company is obliged to repay the difference for the period after the annual sales threshold was reached (Zimmermann and Rainer, 2018).

For generic medicines (i.e. medicines with off-patent active ingredients) included in the ambulatory positive list, pricing regulations are as follows. The price of the first generic “follower” product with identical active ingredients must be 50% less than the price of the originator product. Each “follower” generic medicine is required to have a price difference to the previous generic medicine; the price of the second generic “follower” product has to be 18% lower, and the price of the third “follower” product has to be 15% lower than the price of the second “follower”. The price of the originator product has to be reduced by at least 30% within three months after the inclusion of the first generic into the positive list. If there is a third follower generic medicines, companies selling the first and second “follower” generic products have to reduce their prices to the same level as that of the third follower product. If these price reductions are not carried out, medications have to be removed from the positive list. Further follower products have to offer price deductions of at least

€0.10 to be included in the positive list (Zimmermann and Rainer, 2018). While these price linkage mechanisms had been in place since 2004, the respective percentage rates were revised in April 2017 (i.e. higher difference between the prices of “follower” generic medicines and originator medicines).

The percentage rates of the price linkage mechanisms between the reference products and biosimilar medicines included in the positive list in the ambulatory (extramural) sector were also revised in April 2017 (before the same regulations were applied for biosimilars as for generics). The first follower has to be priced at least 38% below the originator, the second follower has to be priced at least 15% lower than the first follower and the third follower has to be priced at least 10% below the second follower. Then the same procedure as for generics applies (the reference medicine has to decrease its price by 30% within three months, etc.). If these price reductions are not carried out, the medicines affected must be removed from positive list.

All medicines in the positive list (*Erstattungskodex*) are fully reimbursed by SHI (except for a user fee in the form of a prescription fee per prescribed item, see section 3.4.1) (HVB, 2018b). The positive list is divided into three different sections (“boxes”). Pharmaceuticals in the green box can be freely prescribed by physicians. The yellow box includes medicines which offer significant additional therapeutic benefits for patients and which are not included in the green box due to medical or health-economic reasons. The yellow box is subdivided into a light-yellow box and a dark-yellow box. Medicines in the light-yellow box can be freely prescribed for particular indications but must be accompanied by written documentation and prescription behaviour is monitored. Medicines in the dark-yellow box require an ex-ante approval from a SHI fund doctor before they can be prescribed. The red box includes all medicines for which inclusion in the positive list has been requested. The SHI has to decide on their future reimbursement status (yellow or green box, or delisting) and reimbursement price within 180 days (in accordance with EU legislation, the so-called Transparency Directive (Council Directive 89/105/EEC)).

The decision may be revised upon request from the manufacturer or the HVB in case of a new indication or the emergence of new pharmacological, medical/therapeutic or health-economic evidence (BMGF, 2017ak;

Mandlz, 2015; Österreichische Apothekerkammer, 2017; Panteli et al., 2016; Pharmig, 2016). Companies have the possibility to appeal to the Federal Administrative Court (*Bundesverwaltungsgericht*) (Zimmermann and Rainer, 2018). However, medicines not included in the positive list, may be prescribed on individual applications following prior approval from a SHI fund doctor.

Final consumer prices (pharmacy retail prices) of medicines in the ambulatory care sector are calculated by adding to the ex-factory price a mark-up for wholesalers, a mark-up for pharmacies and 10% VAT. There are two wholesale mark-up schemes that differ for medicines in the green and yellow boxes of the positive list and for all other pharmaceuticals. The schemes are set in the Regulation on Maximum Mark-ups in Pharmaceutical Wholesale by the BMGF (*Verordnung des BMGF über Höchstaufschläge im Arzneimittelgroßhandel* (BMGF, 2004)). Remuneration of pharmacies is regulated by the Austrian Pharmacy Mark-up Regulation (*Österreichische Arzneitaxe*), which sets the maximum and statutorily fixed mark-ups for all pharmaceuticals (*Österreichische Arzneitaxe*, 1962). There are different mark-up schemes for “privileged customers” such as SHI funds or *Länder*, and “private customers”.

Medicines in the inpatient sector are purchased by individual hospitals or the hospital owner organizations. Medicines not included in the positive list can be priced freely by the pharmaceutical companies; maximum wholesale mark-ups can also apply in the inpatient sector where relevant. Confidential agreements on the actual prices paid between hospitals and pharmaceutical companies are common (Stemar, 2015). Medicines – except defined medicines for chemotherapy in oncology – are reimbursed as part of the DRG-based payments to hospitals.

COST-EFFECTIVE USE OF PHARMACEUTICALS

When compared with other countries, there are relatively few regulations aiming to assure cost-effective use of pharmaceuticals. Generic substitution in community pharmacies – that is the practice of substituting a prescribed product with another one that contains the same active ingredient(s) (Vogler et al., 2010; Vogler and Zimmermann, 2016) – is not permitted in Austria. Physicians may not prescribe by International Nonproprietary Name (INN)

but must use the brand name, which may explain the rather low uptake of generics in Austria (Vogler et al., 2013; Zimmermann and Rainer, 2018) (see section 7.5.2).

However, the HVB has introduced guidelines for physicians on rational prescribing (RÖV, 2005) which aims to encourage doctors to prescribe under considerations of efficacy and expenditure (Mandlz, 2015). The SHI funds regularly monitor the prescribing behaviour of contracted doctors and provide them with information and counselling about their prescribing behaviour in relation to their peers within the region (Ganjezadeh-Rouhani, 2010). In theory, i.e. according to the collective contract between SHI funds and physicians, penalties are possible if physicians do not follow the guidelines – but this has rarely happened.

Some macro-level measures are in place that aim at reducing costs of pharmaceuticals. Since 2004, pharmacists grant reductions to privileged customers, for example SHI funds, at a rate of 2.5% of the amount of pharmacy income exceeding the national average. In addition, through framework agreements between industry and the HVB a system of annual contributions of the pharmaceutical industry has been introduced for reimbursable medicines since 2008. As a result of negotiations for the period 2016–2018, the industry contributed €125 million in 2016 and will contribute a maximum of €80 million both in 2017 and 2018 to the public budgets, although the final amount will depend on the increase of pharmaceutical expenditures (Österreichische Apothekerkammer, 2017; Panteli et al., 2016; Pharmig, 2016; Vogler et al., 2013).

There is so far no systematic use of Health Technology Assessment (HTA) reports to inform decision-making in the field of medicines in Austria (see section 2.7.2 Health technology assessment).

■ **2.8.5** *Regulation of medical devices and aids*

The Austrian Act on Medical Devices is in line with EU directives (BMGF, 2017ap; Medizinproduktegesetz, 2014) and regulates the construction, operation, application and maintenance of medical devices as well as their safety, efficiency, effectiveness and quality. As EU directives on medical devices were revised in May 2017, the Austrian Act on Medical Devices will be adjusted accordingly within three years with regard to medical devices and

within five years with regard to in vitro diagnostics (Regulation 2017/745/EU, Regulation 2017/746/EC).

Only medical devices with an EU-wide CE mark may be sold in Austria, as this mark means that the device meets the requirements of applicable European legislation. However, there are exceptions for custom-made products, products for clinical trials, products with a special permit and in-house produced products.

The Act on Medical Devices is also the basis for the maintenance of a national medical devices registry by the Austrian Public Health Institute (GÖG), which reports to the European database on Medical Devices (EUDAMED). Registration in the Austrian Medical Devices Registry is obligatory for all Austria-based persons and companies (manufacturers, importers, authorized representatives etc.) responsible for the first introduction of a medical device (including in vitro diagnostics) on the European market. Registration is also mandatory for auditors, testing laboratories, and inspection- and certification bodies of medical devices. Registration of distributors is voluntary but strongly recommended. The online database is cost-free and not publicly accessible (GÖG, 2017f).

All companies or persons that supply medical devices to end users (patients or doctors) have to pay an annual fee of €250–400 to the Federal Office for Safety in Healthcare, depending on the highest class of sold medical devices (BASG, 2017d).

In the ambulatory (extramural) sector, SHI funds are responsible for purchasing and payment of medical devices. There is no collective contract for medical devices. SHI funds contract medical device companies and distributors (e.g. opticians, orthopaedic technicians, medical technology companies) for the provision of medical aids at specified prices. Non-contracted companies are free to set other prices, which will only be reimbursed by SHI funds up to the amount a contracted partner would receive (HVB, 2017m). In addition, user charges apply for certain types of medical aids (see section 3.4.1).

In the inpatient sector, costs of medical devices are usually included in DRG-based payments to hospitals. In addition, individual, highly innovative, medical devices are reimbursed as procedure-related case groups. The adoption of new, innovative medical devices or interventions in the catalogue of procedure-related case groups is increasingly subject to an evaluation in the form of a HTA. Owners of hospitals are responsible for the procurement of medical devices.

■ 2.8.6 Regulation of capital investment

In 2015, €2 500 million or 6.7% of total health expenditure were related to investments, with the majority (54%) made from public sources (see section 4.1.1) (Statistics Austria, 2017t).

The Austrian Structural Plan for Healthcare and the Regional Structural Plans for Healthcare are intended to guide public and private investments in order to ensure an equitable distribution of infrastructure in the country. These plans include regulations for capacities, major equipment in all sectors, etc. However, final decisions on investments in the inpatient sector (incl. hospital outpatient departments) are taken by the owners of hospitals (i.e. *Länder*) (see section 2.5 Planning).

In the ambulatory (extramural) sector, investments are somewhat determined by the location-based staffing plan, which determines the location of contracted providers. However, also in the ambulatory (extramural) sector, owners of practices are responsible for investments, such as for setting up their practices or purchasing equipment (see section 4.1.1). With the Primary Healthcare Act (2017) the implementation of multi-professional primary health care units is supported by public funding of €200 million.

■ 2.9 Patient empowerment

■ 2.9.1 Patient information

Patients can rely on a range of services and sources of information, when making decisions about (accessing) health services. According to the most recent Eurobarometer survey, the most important sources of information about quality of care are trusted health care providers (e.g. patients' GPs) as well as friends and/or family (European Commission, 2013b). Other sources of information involve information centres (run by public and private organizations), self-help organizations and/or patient representatives such as patient lawyers and/or ombudspersons. An increasing number of patients refer to online portals, such as the public health portal <https://www.gesundheit.gv.at/> (see section 4.1.4).

The development of reliable health information with the aim of improving health literacy of the population is relatively high up on the policy

agenda in Austria. Enhancing health literacy is included as target 3 in the Austrian Health Targets (see Box 6.1) (BMGF, 2017u). There are several ongoing initiatives that aim to improve health literacy (e.g. a health-literate-organization-approach for hospitals) (Dietscher et al., 2015; ÖPGK, 2017a). However, the most important initiative is the Austrian Platform for Health Literacy (*Österreichische Plattform Gesundheitskompetenz*), which brings together various players that work on improving health literacy. The current main areas of activity of the Austrian Platform for Health Literacy are the improvement of the quality of communication in health care and of health information. Partners of the Austrian Platform for Health Literacy include representatives of the *Länder* and of social insurance, but also of a number of federal ministries (<https://oepgk.at/>).

Information on the structure and process quality of health services is available for hospitals via www.spitalskompas.at and www.kliniksuche.at, both initiatives of BMASGK, with a slightly different focus. A national initiative focusing on outcome quality assessment in the inpatient setting is the A-IQI. However, information about A-IQI is only available via general reports containing aggregated results at federal level. Information on outcome quality in the entire ambulatory sector is currently not available for the public (see section 2.7.1).

Several international (EHIS, Eurobarometer) and national surveys (Leuprecht et al., 2016a) have assessed accessibility and usefulness of available health information.

Information on benefits is publicly available on websites. In addition, information brochures exist and insured may consult social insurance staff personally or via phone for a consultation. Also private health insurance funds use a range of information channels to make their benefits transparent. However, the benefit package and even co-payments still vary between SHI funds, which complicates traceability for insured persons and induces equity concerns.

In 2017, pilots for a telephone helpline (*Gesundheitsberatung 1450*: www.1450.at) were launched in three *Länder* (Lower Austria, Vorarlberg and Vienna). Expansions of the service are planned for the upcoming years until 2021. The main goal of this new service, which follows examples of other European countries, is to guide patients to the “best point of service” (BMGF, 2017ao).

■ 2.9.2 Patient choice

People insured in Austria cannot choose their SHI fund as these are automatically assigned depending on the occupational group and/or the *Land*. However, patients have free choice of providers, which is a core element of the Austrian health care system. Nevertheless, choice of provider may be influenced by the place of residence, as urban and rural health service structures often differ considerably.

Patients can freely choose any primary or specialized provider of ambulatory care, even if they require a referral for certain services (selected medical specialists, MRI-, CT-investigations). However, the full costs of care will be covered only if patients chose to obtain services from contracted providers. If they chose to obtain care from the increasing number of non-contracted providers, higher out-of-pocket user charges apply.

Patients also have free choice of hospital in case of elective inpatient treatment, although choice may be influenced by waiting times. Patients with supplementary voluntary health insurance can choose a particular physician at their chosen hospital (although with some restrictions in public hospitals) (see section 3.5.1). In case of acute inpatient care, patients are usually transferred to the closest hospital providing the appropriate care, depending on the availability of resources. In addition, choice may be restricted for certain types of care in certain *Länder*, e.g. psychiatric patients in Vienna are taken to hospitals that are determined by the place of residence (see sections 5.2 and 5.3).

■ 2.9.3 Patient rights

Patients' rights are enshrined in numerous federal and state laws. Furthermore, a range of persons and organizations exist that support patients to claim their rights. Fundamental patients' rights are summarized in the Patient Charter (Patientencharta, 2001), which is an agreement between the Federal State and the *Länder* (under Article 15a of the Federal Constitutional Law). The Patient Charter contains fundamental rights of the patient, such as the right to be treated in accordance with current scientific standards, the right to self-determination, the right to information (explanations and informed consent), the right to view one's own medical history, the right to confidentiality and

data protection, and the right to protection of dignity and personal integrity etc. Special provisions and protections are included for children and young people (BMGF, 2017an).

■ 2.9.4 *Complaints procedures*

The improvement of the legal standing of patients is a topic that has been discussed in the Austrian health care system for decades. For complaints and for individual and collective patient representation various institutions have been established with different areas of responsibility (Hofmarcher and Quentin, 2013). When health care-related errors occur, compensation may be claimed for by patients via the routes described below.

Patients can either go through the civil courts to assert claims for compensation on the grounds of medical malpractice. Successful court action requires the presence of the elements of liability in causality, illegality or negligence, as well as the existence of damages.

To circumvent the civil court, the patient ombudsperson and its complaint management competence can be consulted. In many public and private hospitals but also at the Austrian Medical Chamber, the SHI funds, and the Austrian Chamber of Labour there is an ombudsperson's office that deals with individual patient complaints. These offices are generally established as part of the hospital administrative staff and often fulfil the role of a quality manager.

Since 2002, patients who have suffered damages as a result of a diagnosis or treatment in a public or private non-profit hospital can receive compensation from a Patient Compensation Fund (*Patientenentschädigungsfonds*). These funds provide compensation in cases which would not necessarily fulfil requirements for conventional compensation under liability law. They are an additional out-of-court compensation model, financed by patients themselves, who pay 73 cents per inpatient day into the funds (as of 2017, KAKuG). Decisions on payouts are taken by independent commissions with strong involvement of patient ombudspersons.

Moreover, there are arbitration boards for reaching out-of-court settlements, sparing patients and physicians lengthy and expensive legal proceedings. Arbitration boards in most *Länder* are either run directly by the regional medical chamber or with their cooperation and involvement.

■ 2.9.5 *Public participation*

Participation by patients and citizens in the decision-making structures of the public health care system is not systematic (Forster, 2015). However, all citizens have the opportunity to send written statements to draft-bills, -reports or -project results. Online platforms for interested parties to participate in discussions on the development of health care goals were brought in for the first time as part of the Federal Health Conference 2011.

The insured are indirectly represented in the relevant decision-making bodies of their SHI fund via representatives sent to these institutions from chambers of labour or commerce. These representatives are included in the formal consultation stage of the federal and state legislation processes, and they are members of State Health Platforms, target commissions, and the B-ZK. Patient representatives of self-help organizations (or their umbrella organizations) are often also included, but less systematically. Among other factors, this is due to the fact that these bodies do not have a continuous structure or sufficient resources to carry out such representative duties (University of Vienna, 2012).

■ 2.9.6 *Patients and cross-border health care*

Austrian regulations on cross-border care are in line with European regulations and jurisprudence. The regulations and case law on cross-border care, including the Patients' Rights in Cross-border Healthcare Directive (Directive 2011/24/EU), have been incorporated in the Austrian EU Patient Mobility Law (EU-PMG, 2014).

Rules of reimbursement for treatment abroad differ depending on whether treatment was planned before leaving the country or not. Austrian insured are entitled to receive all medically necessary care if they fall ill (unplanned) in any EU Member State and/or European Economic Area Member State (Iceland, Liechtenstein or Norway) as well as Switzerland and Macedonia (BMASGK, 2018h). In this case, they will be treated in accordance with locally applicable regulations and all contracted providers (doctors and hospitals) in these countries are obliged to accept the European Health Insurance Card. Costs for the treatments are first settled between the provider and payer of the treatment country, which is subsequently reimbursed by the

applicable Austrian SHI fund. In the case of planned treatment abroad, two options exist. Either patients go abroad, pay for services, and subsequently seek reimbursement from their SHI fund – but reimbursement is limited to the amount that would have been paid for a comparable treatment in Austria (according to the catalogue of covered services). Alternatively, patients can request prior authorization from their SHI fund (Directive 2011/24/EU), and if authorization is granted, treatment will be fully reimbursed according to the reimbursement rates (at public providers) in the country of treatment (BMGF, 2017a). Patient information on cross-border care is available at the nation contact point, which is hosted by GÖG.

Especially for complex and rare conditions, cross-border health care is becoming increasingly important. Austria takes part in European Reference Networks (ERN), which aim at coordinating health care providers treating patients with complex or rare diseases and conditions. The first ERNs were launched in March 2017, involving more than 900 highly specialized health care units from over 300 hospitals in 26 Member States; 24 ERNs are working on a range of medical conditions including bone disorders, childhood cancer and immunodeficiency (European Commission, 2017c). Austria is represented in the ERN on skin disorders (ERN Skin) by the *EB-Haus* and as network coordinator in the ERN on paediatric cancer (PaedCan) by the St. Anna Kinderspital & St. Anna Kinderkrebsforschung.

3

Financing

The Austrian health system is relatively costly. Around US\$5 138 was spent on health per capita in 2015 (adjusted for differences in purchasing power), about US\$1 800 more than the EU average. Health expenditure in Austria is also high relative to GDP (10.2% of GDP in 2015), which is considerably above the EU average (8.7%). More than 75% of total current health expenditure is financed from public sources. About 18% of expenditure is out-of-pocket (OOP) payments, which is above the EU average (15%), while voluntary health insurance (VHI) only plays a minor role in the system. Average growth rates of health expenditure have been constantly higher than GDP growth rates in recent years, which is currently tackled by caps on federal, sectoral and state (*Länder*) health budgets as part of health care reform.

The health system is financed by a mix of general tax revenues and compulsory social health insurance (SHI) contributions. Income-related SHI contributions accounted for about 60% of publicly financed health expenditures, while the remaining 40% come from general taxation, including value-added tax (VAT), income tax and tobacco tax, which are collected at federal level. SHI has nearly universal coverage (99.9%). There is no competition between SHI funds as the insured are assigned by type or place of employment.

Providers of acute care hospital services are paid mainly via a Diagnosis-Related Group (DRG)-like budget allocation system. Most acute care is provided by public and private non-profit hospitals that are funded via state health funds (*Landesgesundheitsfonds*, LGF). Providers of ambulatory care under contract with SHI funds are paid directly by SHI funds via a mixture

of fee-for-service and contact capitations. Non-contracted providers represent a significant share of ambulatory specialists and can freely set their fee levels. Patients have to pay for these providers out-of-pocket but are subsequently reimbursed 80% of the applicable SHI tariff.

■ 3.1 Health expenditure

The health care sector is an important part of the Austrian economy. In 2015, current health expenditure amounted to €35 077 million or 10.2% of GDP (see Table 3.1). In the same year, €2 500 million were spent on gross capital formation, bringing the total health expenditure to €37 600 million (see section 4.1.1).

TABLE 3.1 Trends in health expenditure in Austria (current prices), 2000–2015

| EXPENDITURE ON HEALTH | 2000 | 2005 | 2010 | 2015 |
|--|--------|--------|--------|--------|
| Current health expenditure (in € millions) | 19 660 | 24 243 | 29 794 | 35 077 |
| Current health expenditure in € per capita | 2 454 | 2 947 | 3 562 | 4 072 |
| Current health expenditure as % of GDP | 9.2% | 9.6% | 10.1% | 10.2% |
| PUBLIC EXPENDITURE | | | | |
| Public current expenditure on health (in € millions) | 14 850 | 18 203 | 22 685 | 26 513 |
| Public expenditure on health as % of current expenditure on health | 75.5 | 75.1 | 76.1 | 75.6 |
| Public expenditure on health as % of GDP | 7.0 | 7.2 | 7.7 | 7.8 |
| Government health spending as % of total government spending | 14.1 | 14.5 | 14.9 | 15.6 |
| PRIVATE EXPENDITURE | | | | |
| Private current expenditure on health | 4 809 | 6 040 | 7 109 | 8 564 |
| Private expenditure on health as % of current expenditure on health | 24.5 | 24.9 | 23.9 | 24.4 |
| Private expenditure on health as % of GDP | 2.3 | 2.4 | 2.4 | 2.5 |
| OOP payments as % of current expenditure on health | 17.8 | 18.6 | 17.7 | 17.9 |
| OOP payments as % of private expenditure on health | 72.9 | 74.5 | 74.3 | 73.4 |
| Voluntary health care payment schemes (VHI, NPISH and enterprise financing schemes) ¹ as % of current expenditure on health | 6.6 | 6.4 | 6.1 | 6.5 |
| Voluntary health care payment schemes as % of private expenditure on health | 27.1 | 25.5 | 25.7 | 26.6 |

| GROWTH RATES (AVERAGE ANNUAL GROWTH RATES IN %) | 2000–2005 | 2005–2010 | 2010–2015 | 2000–2015 |
|--|-----------|-----------|-----------|-----------|
| GDP (nominal) | 3.5 | 3.1 | 2.9 | 3.2 |
| Current expenditure on health | 4.3 | 4.2 | 3.3 | 3.9 |
| Current expenditure on health per capita | 3.7 | 3.9 | 2.7 | 3.4 |
| Public current expenditure on health | 4.2 | 4.5 | 3.2 | 3.9 |
| Private current expenditure on health | 4.7 | 3.3 | 3.8 | 3.9 |

Notes: ¹ See also Table 3.3 for composition of voluntary health care payment schemes. NPISH: Non-profit Institutions Serving Households

Sources: OECD, 2018b; Statistics Austria, 2017w

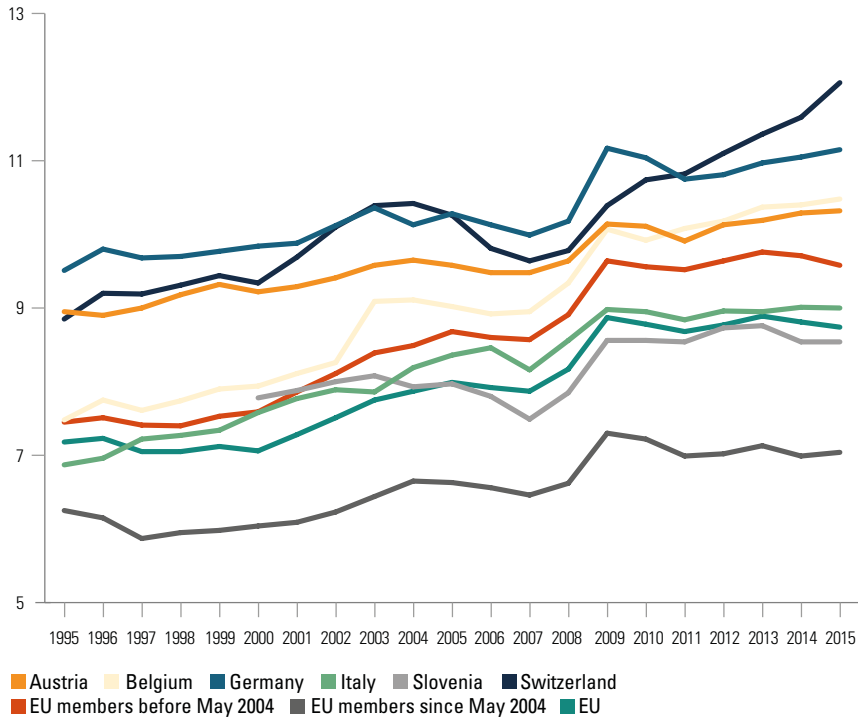
Current health expenditures grew at an annual average rate of about 3.9% between 2000 and 2015, which was higher than the average nominal GDP growth of 3.2% over the same period (see Table 3.1). However, health expenditure growth has declined to 3.3% between 2010 and 2015, which can be partially attributed to the global financial crisis in 2008/2009 and the cost control measures of the Austrian health care reform 2013 – the first Federal Target-Based Governance Agreement (see also section 6.1.2).

Health expenditures in Austria have consistently been well above the average of EU countries but below those of Germany and Switzerland. Figure 3.1 shows trends in current health expenditure as a share of GDP between 1995 and 2015 for selected European countries. Also, when comparing expenditures on health in purchasing power parities (PPP) across countries, Austria spends considerably more than most other European countries (see Figure 3.2). In fact, total health expenditures per capita in Austria were 55% above the EU average (US\$3 310) in 2015.

Health care is largely publicly financed. In 2015, 75.6% of total health care expenditure was financed from public sources, mainly through SHI contributions and general taxation. The public share of health care financing has remained relatively stable since 2000 and was slightly above the average of the European Union in 2015 (see Figure 3.3).

The largest share of health expenditure was spent on hospitals in 2015 (€13 561 million or 38.7% of current expenditure) of which most (86%) was spent on inpatient hospital care. Among EU countries, Austria spends one of the largest shares of its health budget on hospital care; only Greece and Poland spend larger shares on hospital care. Table 3.2 provides an

FIGURE 3.1 Trends in current health expenditure as a share (%) of GDP in Austria and selected countries, 1995–2015

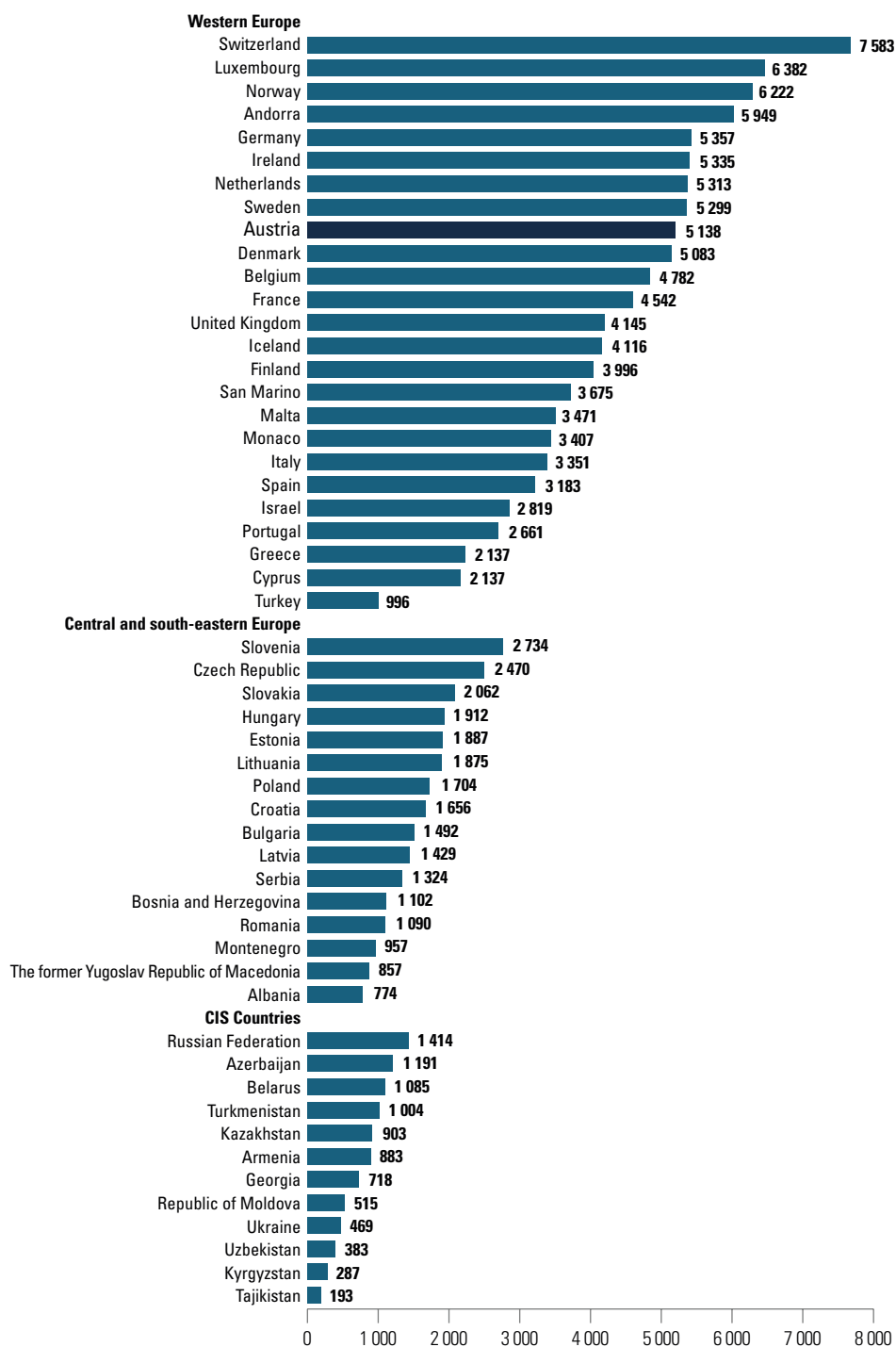


Notes: EU-averages refer to unweighted averages

Source: OECD 2018b

overview of the distribution of public and private health expenditure among the most important provider groups in 2015. Ambulatory (extramural) health care providers received the second largest share (21.9% of current expenditure), while medical goods provided by retailers and other providers represented 16.8%. Spending on residential LTC facilities (€2 955 million or 8.4% of current expenditure) is about 50% higher than spending of households as providers of home health care (€2 000 million or 5.7% of current expenditure). Administration and financing accounted for 3.8% of current expenditure, which is comparatively low for a SHI system (Statistics Austria, 2017w). One explanation for the low level of administrative and financing expenditure is the lack of competition between SHI funds which makes marketing obsolete.

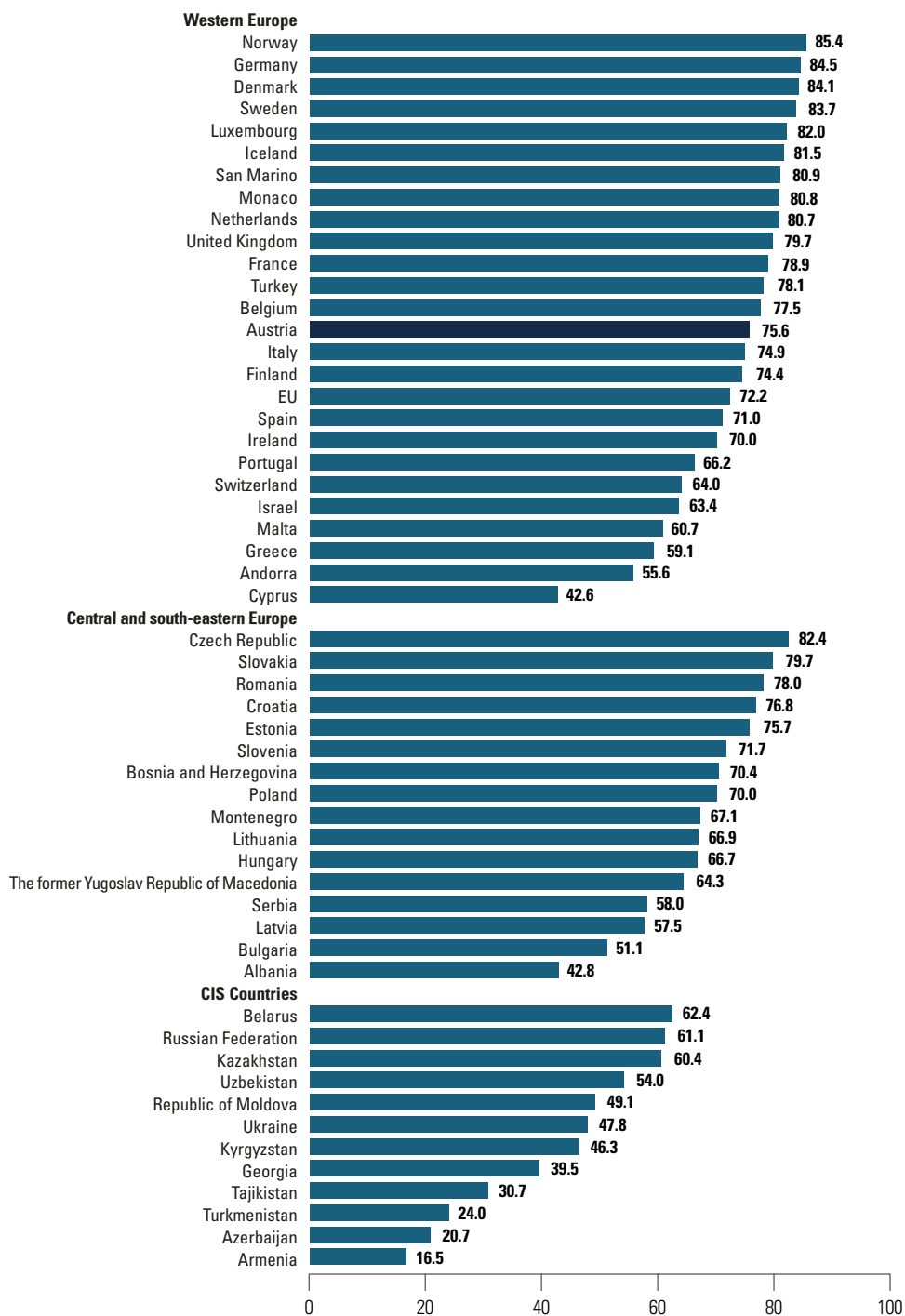
FIGURE 3.2 Health expenditure in PPP per capita in the WHO European Region, 2015 or latest available year (WHO estimates)



Notes: EU, European Union; CIS, Commonwealth Independent States; PPP, Purchasing power parity

Source: WHO, 2017c

FIGURE 3.3 Health expenditure from public sources as a percentage of total health expenditure in the WHO European Region, 2015 (or latest available year)



Notes: EU, European Union; CIS, Commonwealth Independent States

Source: WHO 2017c

TABLE 3.2 Private and public health expenditure by health care provider in € million and as % of current health expenditure (current prices), 2015

| HEALTH CARE PROVIDERS | FINANCING SCHEMES | | CURRENT HEALTH EXPENDITURE | AS SHARE OF TOTAL CURRENT HEALTH EXPENDITURE (%) |
|--|--------------------|---------------------|----------------------------|--|
| | PUBLIC EXPENDITURE | PRIVATE EXPENDITURE | | |
| Hospitals | 12 244 | 1 318 | 13 561 | 38.7 |
| Residential long-term care facilities | 1 770 | 1 186 | 2 955 | 8.4 |
| Providers of ambulatory (extramural) health care | 4 845 | 2 825 | 7 670 | 21.9 |
| Medical practices | 2 552 | 761 | 3 314 | 9.4 |
| Dental practices | 817 | 913 | 1 731 | 4.9 |
| Other health care practitioners | 262 | 567 | 829 | 2.4 |
| Outpatient clinics | 857 | 374 | 1 231 | 3.5 |
| Providers of home health care services | 356 | 209 | 565 | 1.6 |
| Providers of ancillary services | 715 | 342 | 1 057 | 3.0 |
| Providers of patient transportation and emergency rescue | 355 | 245 | 600 | 1.7 |
| Medical and diagnostic laboratories | 360 | 97 | 457 | 1.3 |
| Other providers of ancillary services | 0 | 0 | 0 | 0.0 |
| Retailers and other providers of medical goods | 3 659 | 2 240 | 5 899 | 16.8 |
| Pharmacies | 2 965 | 1 374 | 4 339 | 12.4 |
| Retail sellers and other suppliers of durable medical goods and medical appliances | 380 | 703 | 1 083 | 3.1 |
| All other miscellaneous sellers and other suppliers of pharmaceuticals and medical goods | 314 | 163 | 477 | 1.4 |
| Providers of preventive care | 279 | 15 | 294 | 0.8 |
| Providers of health care system administration and financing | 752 | 569 | 1 321 | 3.8 |
| Government health administration agencies | 68 | 0 | 68 | 0.2 |
| Social health insurance agencies | 684 | 0 | 684 | 2.0 |
| Private health insurance administration agencies | 0 | 569 | 569 | 1.6 |
| Other administration agencies | 0 | 0 | 0 | 0.0 |
| Rest of the economy | 2 115 | 63 | 2 178 | 6.2 |
| Households as providers of home health care | 2 000 | 0 | 2 000 | 5.7 |
| All other industries as secondary providers of health care | 115 | 63 | 178 | 0.5 |
| Rest of the world | 134 | 7 | 141 | 0.4 |
| Current expenditure on health care | 26 513 | 8 564 | 35 077 | 100.0 |

Source: Statistics Austria, 2017w

■ 3.2 Sources of revenue and financial flows

The contributions from different sources of revenue to fund health expenditure (SHI contributions, taxes, OOP, and VHI) has remained relatively stable over the past 10 years (see Table 3.3). SHI contributions represent the largest share of revenue, accounting for 44.8% of current health expenditure and 60% of public expenditure in 2015 (Table 3.3 and Figure 3.4). Contributions are pooled by the Main Association of Austrian Social Security Institutions (HVB) and subsequently allocated to SHI funds for payment of health care providers.

TABLE 3.3 Sources of revenue as percentage of current expenditure on health (current prices), 1980–2015

| | 1980 | 1990 | 2000 | 2005 | 2010 | 2015 |
|---|---------|----------|----------|----------|----------|----------|
| Current health expenditure (in € million) | 5 417.9 | 10 615.9 | 19 659.7 | 24 243.1 | 29 793.6 | 35 076.9 |
| Government/compulsory schemes | 67.2% | 74.4% | 75.5% | 75.1% | 76.1% | 75.6% |
| Government schemes | – | – | – | 29.2% | 31.7% | 30.8% |
| Compulsory contributory health insurance schemes/CMSA | – | – | – | 45.9% | 44.5% | 44.8% |
| Voluntary schemes/household out-of-pocket payments¹ | 32.8% | 25.6% | 24.5% | 24.9% | 23.9% | 24.4% |
| Voluntary health insurance schemes | – | – | 5.3% | 5.0% | 4.7% | 4.9% |
| Household out-of-pocket payments | – | – | 17.8% | 18.6% | 17.7% | 17.9% |
| NPISH financing schemes | – | – | 1.2% | 1.2% | 1.3% | 1.4% |
| Enterprise financing schemes | – | – | 0.2% | 0.2% | 0.2% | 0.2% |

Notes: ¹ refers to OECD, Eurostat & WHO (2011)

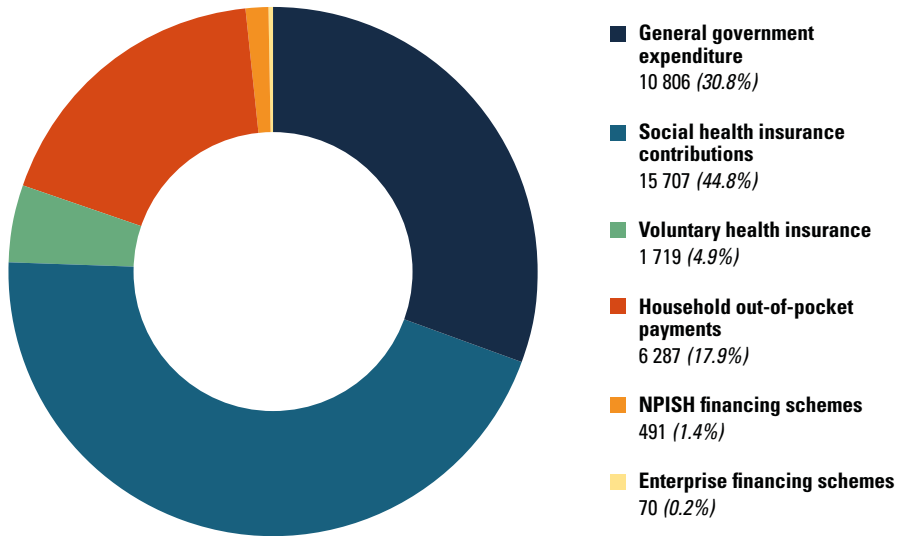
² Non-profit institutions (NPISH) financing schemes means non-compulsory financing arrangements and programmes with non-contributory benefit entitlement that are based on donations from the general public, the government or corporations.

Enterprise financing schemes include primarily arrangements where enterprises directly provide or finance health services for their employees (such as occupational health services), without the involvement of an insurance-type scheme. Therefore, this excludes employer-based insurance schemes (OECD, Eurostat, WHO, 2011).

CMSA: Compulsory Medical Saving Accounts; NPISH: Non-profit institutions serving households

Source: OECD (2017c)

FIGURE 3.4 Value (in € million) and percentage of total expenditure on health according to source of revenue, 2015



Note: NPISH: Non-profit Institutions Serving Households

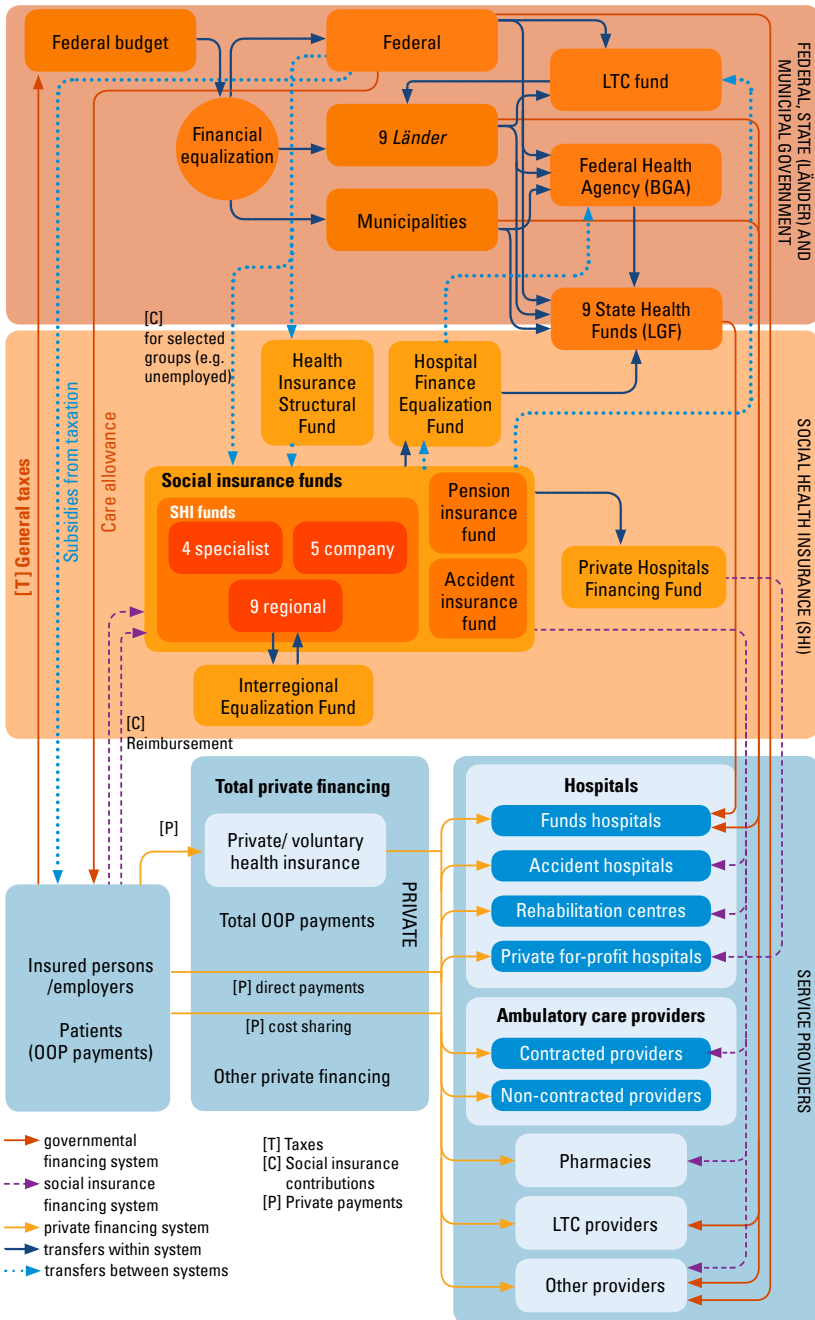
Source: OECD 2017c

Revenue raised from taxes constitutes the second largest source, amounting to 30.8% of total expenditure and 40% of public expenditure in 2015. This corresponds to payments of the federal government, the *Länder* or municipalities for the costs of inpatient care and LTC, public health and prevention, as well as contributions to SHI funds for the unemployed and for maternity benefits. Tax revenues for health care are mainly pooled by the Federal Health Agency (*Bundesgesundheitsagentur*, BGA) at the federal level and by the nine state health funds (LGFs) at the level of the *Länder*.

Private expenditure (including VHI) is the third largest source of revenue and contributed one fourth of current health expenditure in 2015. OOP accounted for 18% of health expenditures in Austria, which is relatively high compared to most other high-income EU countries and above the EU-28 average of 15% in 2015. Voluntary health insurance (VHI) plays a minor role in Austria with a share of about 4.9% of current health expenditure in 2015.

Figure 3.5 provides an overview of sources of revenues and the financial flows in the Austrian health care system. The following sections provide in-depth information.

FIGURE 3.5 Financial flows in the Austrian health care system



Notes: Other private financing refers to NPISH (Non-profit Institutions Serving Households), and enterprise financing schemes, respectively. Other providers refers to providers of ancillary services, preventive care, medical goods (other than pharmacies), administration, rest of the economy, and rest of the world, respectively. Health and welfare institutions (Krankenfürsorgeanstalten) are not incorporated in the figure due to abstraction.

Hospital financing is particularly complicated and fragmented in Austria. The *Länder* pay for an important part of inpatient care and operate one LGF fund each. These nine LGFs play the most important role in hospital financing. They pool resources from various sources, and directly finance acute and curative care in hospitals. Hospitals financed via the LGFs are called funds hospitals. The LGF receive general tax revenues from the federal government, state governments and municipalities as well as negotiated lump sums from SHI funds. In addition, different levels of government allocate funding to the LGFs and supra-regional hospital services via the BGA. Most private hospitals are financed through the Private Hospitals Financing Fund (*Privatkrankenanstalten-Finanzierungsfonds*).

Figure 3.5 shows the fragmentation of the responsibilities in financing different types of providers or sectors. Ambulatory care providers e.g. GPs, specialist physicians or dentists are exclusively financed by the 18 SHI funds. LTC services are mostly financed by the *Länder* and municipalities. The federal government covers a fixed proportion of expenses or subsidizes a fixed amount (care allowance) irrespective of actual costs if eligibility criteria are met (see also section 3.6.2). Rehabilitation centres are financed by the pension insurance, accident insurance or health insurance. Accident insurance covers rehabilitation following a work-related accident. Pension insurance covers the costs for pensioners' rehabilitation and for rehabilitation efforts that serve to prevent inability to work. Health insurance covers the remaining cases.

■ 3.3 Overview of the statutory financing system

■ 3.3.1 Coverage

WHO IS COVERED?

In Austria SHI covered 8.82 million persons (including non-residents) or 99.9% of the population in 2016. About 76% of the insured population (6.66 million persons) paid wage-based contributions while about 24% were co-insured dependants such as children (until the age of 18, extendable under certain conditions until the age of 27), spouses and partners (HVB, 2017b). In 2010, coverage was extended to several non-standard employment relationships such as marginal part-time workers, quasi-freelancers, the newly self-employed, and temporary agency workers (see Table 2.2).

Membership in an SHI fund is determined by law according to place of occupation, type of occupation or occupational status (unemployed, pensioners, etc.). Thus, there is no regulated competition between SHI funds.

Insurance coverage is mandatory under various laws that apply to different groups in the population covered by different types of health insurance funds. The General Social Insurance Act (Allgemeines Sozialversicherungsgesetz, 1955, ASVG) regulates the nine regional health insurance funds that insure 76% of the population. There are five company health insurance funds (*Betriebskrankenkassen*) for the employees of five larger companies that are also regulated by the ASVG (see Table 3.4). In addition, there are specialist insurance laws (the Federal Act on Social Insurance for Persons engaged in Trade and Commerce (GSVG), Act on Social Insurance for Farmers (BSVG) and the Civil Servants' Health and Accident Insurance Act (B-KUVG), Act on Social Insurance for the Self-Employed in Commerce, Trade and Industry (FSVG)) that regulate health insurance and respective health institutions for specific groups of the populations (self-employed, farmers and civil servants) (HVB, 2017f) (see Table 3.4).

The insurance for the self-employed (Social Insurance Fund for Persons Engaged in Trade and Commerce) differentiates between insured persons eligible for benefits in kind, and those who are eligible for cash benefits only (people with an annual income above €71 819.99 as of 2018). Since 2000, a number of self-employed groups (physicians, pharmacists, lawyers, architects, public accountants, veterinarians and notaries) have the right to opt out of the statutory SHI system (GSVG). However, they have to take up either voluntary self-insurance offered by a SHI fund or private health insurance (often regulated via professional chambers).

The federal government covers contributions for the unemployed; contributions for pensioners are covered partly by deductions from pension payouts and partly by the pension insurance. SHI contributions of recipients of the needs-based minimum income (social welfare benefits, *bedarfsorientierte Mindestsicherung*) are covered by the *Länder*. They have access to services under the ASVG and receive the electronic health insurance card (e-card) free of charge. Moreover, they do not have to pay deductibles such as prescription fees. Registered asylum seekers are covered under SHI and have access to the same services as insured residents. Their SHI contributions are covered by federal funds. In some *Länder* they receive an e-card and are exempted from co-payments. Irregular migrants are not covered by SHI and need to pay for the medical service out of pocket (Anzenberger et al., 2014).

TABLE 3.4 Number, legal basis and eligible population of SHI funds, 2017

| | LEGAL BASIS | NAME OF SHI FUNDS (NUMBER OF FUNDS) | ELIGIBLE POPULATION | NUMBER OF INSURED ¹ | PROPORTION OF TOTAL SHI INSURED |
|----------------------------|---|---|--|-----------------------------------|------------------------------------|
| ASVG | General Social Insurance Act (ASVG) (1955) | Regional health insurance funds (9) | Employees, freelancers, apprentices, pensioners, the registered unemployed, and persons on maternity or paternity leave, among others | 7 161 604 | 76.11% |
| | General Social Insurance Act (ASVG) (1955) | Company health insurance funds (5) | Employees of five companies: BKK Mondl, BKK-VA (voestalpine Bahnsysteme), BKK-WVB (Wiener Verkehrsbetriebe), BKK-ZW (Zeltweg), BKK-KA (Kapfenberg) | 49 086 | 0.52% |
| Specialist insurance funds | Federal Act on Social Insurance for Persons engaged in Trade and Commerce (GSVG) (1978) | Social Insurance Fund for Persons engaged in Trade and Commerce (1) | Self-employed and the newly self-employed (e.g. artists or journalists) | 811 991 | 8.63% |
| | Act on Social Insurance for Farmers (BSVG) (1978) | Social Insurance Fund for Farmers (1) | Farmers | 352 780 | 3.75% |
| | Civil Servants' Health and Accident Insurance Act (B-KUVG) (1967) | Social Insurance Fund for Public Service Wage and Salary Earners (1) | Civil servants | 814 725 | 8.66% |
| | ASVG and B-KUVG | Social Insurance Fund for the Austrian Railways and Mining Industries (1) | Employees of the Austrian Federal Railways and mining industry | 219 383 | 2.33% |
| Sum¹ | | | Including double counted insured | 9 409 569 | 100.00% |
| Sum² | | | | 8 677 278 | |

¹ Insurees who are covered by more than one SHI fund are counted more than once. ² Each person is only counted once.

Notes: BKK, Betriebskrankenkassen (company health insurance funds).

Figures refer to the annual average 2017. While the sums include non-residents; they exclude the population covered by Health and Welfare Institutions.

Sources: Beamten-Kranken- und Unfallversicherungsgesetz, 1967; Gewerbliches Sozialversicherungsgesetz, 1978; HVB, 2018a

Health services for prisoners are under the responsibility of the Federal Ministry of Justice and are covered by federal funds. Health benefits for members of the Austrian Armed Forces are also outside the statutory health insurance system and covered by the Ministry of Defence (from federal funds) (see also section 3.6.1).

A particularity of the Austrian SHI system are the Health and Welfare Institutions (*Krankenfürsorgeanstalten*) for civil servants at the level of the *Länder* or municipalities. The B-KUVG allows public bodies to insure their employees directly via these Health and Welfare Institutions. In total 15 Health and Welfare Institutions for civil servants exist both at *Länder* and municipality level and they are not subject to federal oversight. In 2016, about 200 000 civil servants and dependants were insured via the Health and Welfare Institutions which fulfil the same functions as SHI (health and accident insurance).

WHO IS NOT COVERED?

A small number of people who are neither employed, insured as dependents, without residence permits, nor are recipients of any form of unemployment benefit or social aid are not covered by SHI. They have the opportunity to sign up for a voluntary health insurance scheme offered by SHI funds. These schemes are particularly relevant for part-time employees earning up to €438.05 (in 2018) per month and students who are not eligible for insurance as a dependent (HVB, 2018f).

WHAT IS COVERED?

Health insurance legislation defines that SHI coverage protects individuals from risks of illness, inability to work, and it provides benefits and health care in the event of motherhood. The minimum benefits package is determined by law, irrespective of the SHI fund and the law governing mandatory insurance (see Table 3.5). The collective contracts between SHI funds and physicians define the services covered. Except for pharmaceuticals, there are no explicit positive lists specifying which services or products have to be covered by SHI. Negative lists do not exist either.

TABLE 3.5 Covered social health insurance services according to ASVG

| | |
|---|--|
| PREVENTIVE CARE AND HEALTH PROMOTION | Mother-child-pass (screening programme) (<i>Mutter-Kind-Pass</i>) |
| | Medical examinations for young persons |
| | Medical examinations |
| | Public health measures (vaccination, screening, etc.) |
| | Preventive measures and health promotion |
| | Health consolidation and illness prevention (spa treatment) |
| SICKNESS | Treatment by doctors and dentists (general and specialist ambulatory (extramural) care including: psychotherapy) |
| | Physiotherapy, ergotherapy, logotherapy |
| | Therapeutic massage |
| | Diagnostic services |
| | Hospital care |
| | Medicines |
| | Home medical care (including nursing care) |
| | Medical rehabilitation |
| | Sickness benefit |
| | Return-to-work-benefit ¹ |
| | Rehabilitation allowance |
| | Case management |
| | Travel and transportation |
| | Reimbursement (e.g. doctor of one's choice) |
| | Contributions towards expenses (e.g. dentures) |
| | Braces for children |
| | Assistance in event of physical infirmity |
| | Therapeutic aids (e.g. shoe inserts) |
| | Aids for the disabled (e.g. wheelchairs) |
| | MATERNITY |
| Medicines and therapeutic aids related to maternity | |
| Midwifery and infant nurse care | |
| Maternity allowance | |

Notes: ¹ Wage compensation for reduced working hours after a long sick leave (min. 6 weeks) in order to allow a gradual return to work

Source: Allgemeines Sozialversicherungsgesetz, 1955; HVB, 2017b

Treatment and prescribing behaviour of doctors and other health professions under contract with SHI funds shall adhere to the guiding principle that provision of treatment must be sufficient and appropriate but should not exceed what is necessary (HVB, 2017c). The most recent extension of the statutory benefit package was the inclusion of dental braces for children and adolescents under the age of 18 in cases of severely misaligned teeth in July 2015 and the abolishment of co-payments for children in hospitals in 2017.

Most benefits are provided in kind. These are predominantly hospital care, treatment by physicians, dental care and prostheses, midwifery, medical nursing care at home and preventive health check-ups. Nursing care at home and psychotherapy by nonphysician staff have been compulsory benefits since the early 1990s. Sickness benefits, maternity allowance and travel expenses are cash benefits.

In case of sickness absence of an insured employee, the employer continues to pay 100% of the gross employee salary or wage for a period of six to 12 weeks (depending on the duration of employment at the current employer). After this period the share of the employer is reduced to 50% for another four weeks, with the remaining 50% complemented by a sickness benefit paid by the SHI. Thereafter, the SHI fund pays a sickness benefit, equivalent to 100% of gross the employee salary or wage, for a period of at least 6 or 12 months, depending on the duration of insurance coverage (BKA, 2018c).

In addition to the minimum benefits package, SHI funds may cover certain complementary benefits. SHI funds have no legal obligation to offer these benefits, and they do so according to their available resources. Voluntary ASVG services include certain cosmetic treatments (Article 133, ASVG), health consolidation measures and illness prevention (Articles 155, 156, ASVG), or a funeral costs award (Article 116, paragraph 5, ASVG). Within their statutes, SHI funds may also provide additional services, such as preventive services, reimbursing travel expenses for carers, or extending eligibility for illness benefits.

HOW MUCH OF BENEFIT COST IS COVERED?

SHI generally covers the vast majority of benefit costs but there are cost-sharing requirements for several categories of benefits and these requirements

differ between SHI funds. Cost-sharing requirements are the main area of variation in coverage between SHI funds (Hofmarcher and Quentin, 2013). For example, there are co-payments for hospital stays, for services from non-contracted providers and for prescription medicines. However, the level of user charges differs by SHI fund and numerous exemption mechanisms exist for poorer households. In 2015, cost-sharing amounted to 2.1% of current health expenditure or 12% of total OOP expenditure (see section 3.4).

■ 3.3.2 Collection

Health care in Austria is mainly financed through a mix of income-related SHI contributions (about 60% of public health expenditure) and general taxes (about 40%) (Statistics Austria, 2017t). Taxes are collected at federal level and distributed via financial equalization mechanisms to three different administrative levels that finance health care: the (central) federal government, nine state governments, 2 102 municipalities.

The *Länder* cover their health expenditure from their share of general taxation, the majority of which is not earmarked. Earmarked tax revenue (small percentages of VAT and tobacco tax) is distributed from the federal level to the *Länder* via a financial equalization scheme and is mainly used to finance hospitals but also health promotion and preventive measures, and research and planning projects (see section 3.3.3). The tax-based share of health expenditure depends on the general level of tax revenues and thus on the macro-economic conditions.

SHI contributions are based on income and not on health risks. Contribution rates are determined by law and can only be changed by the Austrian Parliament. The contribution rate amounted to 7.65% of employment-based income or income (also called the contribution base) for the majority of the contributing population in 2017. The contribution rate is nearly equally shared between employers and employees: 50.6% (contribution rate of 3.87% of income) are paid by the employee and 49.4% (contribution rate of 3.78% of income) by the employer. Lower contribution rates apply to civil servants (7.635%) and pensioners (5.1%). SHI contributions for certain population groups (e.g. the unemployed) are financed from general tax revenues.

SHI funds collect contributions independently. Employers pay SHI contributions, including both the employers' and the employees' share, to one of the 18 SHI funds. The federal state pays the employer contribution for pensioners (through pension insurance) and for the unemployed (HVB, 2016b).

SHI contributions are capped. In 2018, contributions increased proportionally up to a base salary or wage threshold of €5 130 per month for employees (plus annual bonus payments of €10 260). This means that the maximum SHI contribution was €392.44 per month (Allgemeines Sozialversicherungsgesetz, 1955). For self-employed and farmers the maximum income threshold on which to pay contributions was set at €5 985, and the maximum SHI contribution was €457.86 per month (HVB, 2017g). However, it must be mentioned that the annual maximum amount of SHI contributions are equal for employees and self-employed/farmers due to the 13th month or 14th month bonus payments for employees.

Revenues and expenditures of SHI funds are shown in Table 3.6. Health insurance contributions, the largest source, include contributions from the federal government for selected groups of people, e.g. family members of conscripts, and asylum seekers. In addition, SHI receives revenues from the Interregional Equalization Fund as well as reimbursements for services that are administered via SHI but financed by other payers (e.g. maternity benefit, mother-child-pass screening programme) or private insurances.

■ 3.3.3 *Pooling of funds*

The financing of Austria's health system is highly fragmented with a complex network of pooled funds, transfers between the tax system and the SHI system and with financial obligations being shared between three governmental levels. The responsibilities of the different governmental financing agents are regulated by agreements under Article 15a of the Federal Constitutional Law and by the Financial Equalization Act. These agreements are concluded between the federal level and the *Länder*, usually in line with the general negotiations on fiscal allocation, as they commonly determine the financial flows for hospital care between the federal level and the *Länder* (see also section 2.8.1).

TABLE 3.6 Revenues and expenditure of Austrian social health insurance funds in 2016, in € million

| SHI funds | ALL SHI FUNDS | SHARE IN % | OF WHICH REGULATED BY | | | | | | |
|---|---------------|---------------|-----------------------|------------|------------|--------------|------------------|------------------|-------------------|
| | | | ASVG | B-KUVG | GSVG | BSVG | GKK ¹ | BKK ² | VAEB ³ |
| Total revenues | 17 889 | 100.0% | 13 647 | 121 | 602 | 1 797 | 1 110 | 612 | |
| Health insurance contributions | 14 640 | 81.8% | 11 027 | 106 | 524 | 1 567 | 905 | 511 | |
| Prescription fees | 403 | 2.3% | 305 | 4 | 15 | 41 | 23 | 15 | |
| Return on assets | 33 | 0.2% | 15 | 2 | 3 | 9 | 0 | 3 | |
| Reimbursements (for e.g. maternity benefit, <i>MuKiPa</i>) | 1 833 | 10.2% | 1 586 | 7 | 41 | 107 | 67 | 26 | |
| Interregional Equalization Fund | 300 | 1.7% | 300 | - | - | - | - | - | |
| Other revenues | 680 | 3.8% | 414 | 3 | 19 | 74 | 114 | 57 | |
| Total expenditure | 17 776 | 99.4% | 13 556 | 116 | 601 | 1 823 | 1 094 | 585 | |
| Physician services and equivalent services | 4 242 | 23.7% | 3 198 | 29 | 144 | 455 | 289 | 127 | |
| Pharmaceutical products | 3 439 | 19.2% | 2 677 | 25 | 118 | 280 | 209 | 130 | |
| Medical and therapeutic aids | 268 | 1.5% | 191 | 2 | 7 | 26 | 21 | 20 | |
| Dental care | 1 008 | 5.7% | 753 | 6 | 32 | 116 | 68 | 32 | |
| Inpatient care (without hospital outpatient departments, transfer to LGF) | 5 007 | 28.2% | 3 732 | 37 | 170 | 566 | 319 | 182 | |
| Medical home care | 19 | 0.1% | 15 | 0 | 1 | 1 | 1 | 1 | |
| Sick leave benefits | 704 | 3.9% | 632 | 3 | 18 | 15 | 35 | - | |
| Rehabilitation benefits | 314 | 1.8% | 309 | 1 | 2 | 2 | - | - | |
| Maternity benefits | 680 | 3.8% | 569 | 1 | 4 | 73 | 22 | 11 | |
| Health promotion and prevention including medical rehabilitation | 758 | 4.3% | 481 | 7 | 49 | 167 | 35 | 19 | |
| Transport costs | 233 | 1.3% | 177 | 2 | 11 | 20 | 10 | 12 | |
| Other services | 87 | 0.5% | 69 | 1 | 5 | 6 | 3 | 2 | |
| Organizational and administrative expenditure | 481 | 2.7% | 290 | 1 | 32 | 66 | 53 | 39 | |
| Other expenditure | 537 | 3.0% | 461 | 2 | 7 | 30 | 28 | 9 | |
| ACCOUNT BALANCE | 113 | 0.6% | 90 | 5 | 1 | -26 | 15 | 27 | |

Notes: GKK, Gebietskrankenkassen (regional social health insurance funds); BKK, Betriebskrankenkassen (company health insurance funds); VAEB, Versicherungsanstalt für Eisenbahnen und Bergbau (Insurance Fund for the Railway and Mining Industries); BVA, Versicherungsanstalt öffentlich Bediensteter (Civil Servants' social insurance fund); SVA, Sozialversicherungsanstalt der gewerblichen Wirtschaft (social insurance fund for Persons engaged in Trade and Commerce); SVB, Sozialversicherungsanstalt der Bauern (social insurance fund for farmers); MuKiPa, Mutter-Kind-Pass (mother-child-pass screening programme)

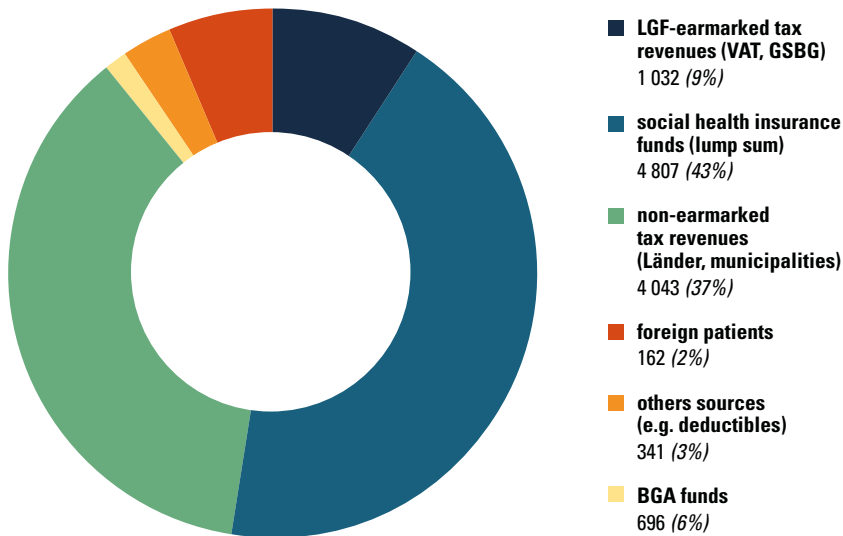
Source: HVB, 2017i: Tables 5.08 and 5.09

POOLING AND DISTRIBUTING FUNDS AT THE FEDERAL AND LÄNDER LEVEL

Tax revenues for health care are mainly pooled by the Federal Health Agency (*Bundesgesundheitsagentur*, BGA) at the federal level and by the nine LGF at the level of the *Länder*. The BGA is a public fund that pools earmarked and fixed shares of tax revenues such as VAT, tobacco tax, income tax and a lump sum paid by SHI funds at federal level. The fund distributes resources to the LGFs according to pre-specified shares for the financing of hospitals. To compensate *Länder* particularities (e.g. for *Länder* hosting a high number of tourists) or imbalances due to Austrian patients receiving care in a *Land* other than their own, some LGF receive subsidies (paid as lump sums) from the BGA. The BGA also finances scientific and health care planning projects, the electronic health record (ELGA), coordination of transplantations and national health prevention and promotion programmes (BMGF, 2017ah). Since 2017, the BGA also co-finances newly created supra-regional health care service departments that provide specialist care for highly contagious diseases or severe burns victims (see also Figure 3.5).

State health funds (*Landesgesundheitsfonds*, LGF) were created as part of the 2005 health reform. Each of the nine *Länder* operates a LGF. LGF are responsible for integrated planning, steering and – most importantly – financing of public and private non-profit acute care hospitals. They pool funds from various sources (see Figure 3.6):

- funds from the BGA via the process described above;
- a fixed share of VAT from general tax revenues of the *Länder* and municipalities;
- funds (tax-based) according to the Health and Social Sector Assistance Act (*Gesundheits- und Sozialbereich-Beihilfengesetz*, 1996);
- negotiated lump sums from the SHI funds dedicated to inpatient care (*Allgemeines Sozialversicherungsgesetz* (1955) in its current version), covering in total about 43% of public spending for hospital care in 2015;
- funds from the *Länder* and municipalities for covering operational losses of hospitals (*Betriebsabgangsdeckung*);
- compensation for treatment of foreign patients from foreign payers;
- other sources e.g. co-payments by patients for inpatient care.

FIGURE 3.6 Sources of revenue of LGF as % of total revenue, 2014

Notes: LGF, State health funds; GSBG, Health and Social Sector Assistance Act; BGA, Federal Health Agency' change to 'Notes: LGF, State health funds; GSBG, Health and Social Sector Assistance Act; BGA, Federal Health Agency; VAT, Value-added tax

Source: Own calculation based on system of health accounts micro data (BMGF 2017af)

Each LGF has a Health Platform that plays an important role in the health system governance at *Länder* level as it determines the use of the funds of the LGF and is responsible for the hospitals financing system at *Länder* level (see section 2.3.4).

In 2014, more than €11 000 million were distributed to the LGFs with the majority being redistributed among hospitals based on the Austrian DRG system. However, in some of the *Länder* there are also direct payments from state governments to hospitals that bypass the LGFs (approx. €190 million in 2014). In 2013, additional State Health Promotion Funds (*Landesgesundheitsförderungsfonds*) were set up by the LGFs in each *Land*, endowed with in total €150 million for all LGFs from SHI funds and from state governments for a period of 10 years (2013–2022) (ZS-G, 2013).

FUNDS ADMINISTERED BY SOCIAL HEALTH INSURANCE

The Main Association of Austrian Social Security Institutions (*Hauptverband der österreichischen Sozialversicherungsträger*, HVB) administers a number of

funds to equalize the availability of financial resources for the BGA, the LGF and SHI funds. These equalization funds mainly receive resources from the 18 SHI funds, federal subsidies and general tax revenue.

The Hospital Finance Equalization Fund (*Ausgleichsfonds für die Krankenanstaltenfinanzierung gemäß § 447f, ASVG*) was established in 1978 and has the main purpose to pool SHI resources for financing public hospitals in the form of earmarked lump sums.

To equalize for different risk structures, liquidity and regional particularities among the nine regional SHI funds, the Interregional Equalization Fund (*Ausgleichsfonds der Gebietskrankenkassen*) was created in 1961 under the responsibility of the HVB. It receives resources from the regional SHI funds (1.64% of their revenues from SHI contributions), federal subsidies and earmarked taxes (*Allgemeines Sozialversicherungsgesetz, 1955; Dienstgeberabgabegesetz, 2003; Gesundheits- und Sozialbereich-Beihilfengesetz, 1996*) and redistributes them among regional SHI funds if revenues per compulsorily insured person drop below the average across all contributing SHI funds. About 57% of its resources are dedicated to a risk adjustment scheme that adjusts for age structure, gender, income levels and heavy users of medicines (i.e. the 1% of the insured causing the highest expenditure for medicines). Another 33% are used to compensate liquidity imbalances and 10% are used to finance special demands. Before 2012, only 45% of funds were used for risk adjustment and 45% for liquidity imbalances. Between 2012 and 2015, these allocation guidelines were successively changed in favour of risk adjustment. Besides these equalization rules, the distribution of funds is subject to negotiations between the regional SHI funds (HVB, 2006a). In 2016 its endowment was €312 million.

To prevent a number of SHI funds from falling into debt the Health Insurance Structural Fund (*Krankenkassen-Strukturfonds*) was set up in 2010 with an endowment of €100 million from general tax revenues. Funds are distributed to SHI funds under financial pressure if they meet specific financial criteria. Between 2011 and 2014, the fund received €40 million per year. In 2015, payment by the federal government was suspended but restored in 2016. Until 2018 the yearly payment of €10 million is earmarked for cost containment measures, better services in terms of integrated care and improved quality (*Krankenkassen-Strukturfondsgesetz, 2009*).

COMPENSATION FUND FOR PRIVATE HOSPITAL SERVICES

Private for-profit hospitals that contract with SHI funds receive compensation for inpatient services from the Private Hospitals Financing Fund established in 2002. A commission consisting of representatives of the *Länder*, the federal government, the SHI funds and the Chamber of Commerce, controls the fund.

The services offered by private hospitals are examined and then paid for by the Private Hospitals Financing Fund under the rules of the Austrian DRG-based hospital payment system. The Private Hospitals Financing Fund itself is mainly funded by a lump sum payment from all SHI funds that is adjusted annually with the increase of SHI contribution rate (€112.4 million in 2015). Furthermore, patients' statutory co-payments related to stays in private hospitals are administered via the Private Hospitals Financing Fund (see also section 3.7.1).

■ 3.3.4 *Purchasing and purchaser–provider relations*

The Austrian health care system is characterized by a mix of selective and collective contracts between purchasers and service providers. In particular, the purchaser–provider relations can be distinguished between relatively active purchasing in the ambulatory (extramural) sector and passive purchasing in the inpatient sector.

In the ambulatory sector, collective contracts are regularly negotiated between medical chambers (either the Austrian Medical Chamber or regional medical chambers – on behalf of independently practising physicians) and the HVB (on behalf of the SHI funds). This means that in fact every SHI fund negotiates its own collective contract. These contracts specify and regulate the catalogue of services, associated tariffs, payment mechanisms, service volumes, and the number of contracted providers. Physicians are awarded a contract with SHI funds based on collective contracts and regional staffing plans, which regulate the number of contracted practitioners per discipline and per region (Waldner, 2001; HVB, 2017j). Many practising physicians have a contractual relationship with one or more health insurers.

Physicians not included in these plans are not subject to collective contracts and hence have no contract with SHI funds. However, these may

charge fees that are above those stipulated in the collective contract for which patients can claim reimbursement for up to 80% of the service fee that would have been paid to a contracted practitioner. Private health insurance may cover the difference between non-contracted provider fees and those reimbursed by SHI.

Collective contracts with other health providers (e.g. orthopaedic shoemakers) can be concluded by the Austrian Chamber of Commerce (*Wirtschaftskammer Österreich*). Collective contracts with the Austrian Chamber of Pharmacists (*Österreichische Apothekerkammer*) are regularly negotiated and regulate prescription fees, billing and dispensing details for medicines.

Some outpatient clinics (*Ambulatorien*), which are legally considered to be hospitals, can choose to either conclude selective contracts or can accept the general collective contract for independent physicians with health insurance funds (only outpatient clinics that provide MRI and/or CT are required to conclude collective contracts). Also the new primary health care units initially concluded selective contracts but a collective contract is currently under negotiation and may replace these selective contracts in the future.

In the inpatient sector, all hospitals are contracted collectively by the SHI funds, regardless of whether they are publicly or privately owned, but are reimbursed by the LGF. Hence, the *Länder* play a more important role in the purchasing of inpatient care than SHI funds. SHI funds are passive purchasers of inpatient services as they pay a lump sum to LGFs earmarked for hospital financing and are at the same time legally required to contract all hospitals that are authorized within the Regional Structural Plans for Healthcare (see section 2.8.2).

■ 3.4 Out-of-pocket payments

In 2015, out-of-pocket (OOP) payments that include direct payments, user charges (cost-sharing) and informal payments constituted 17.9% of current expenditure on health (73.4% of private expenditure, see Table 3.1) (Statistics Austria, 2017w). Over the last 10 years, absolute OOP spending increased by 36.4%, from €4 610 million in 2006 to €6 287 million in 2015, while its share of total health expenditure slightly decreased by 0.3 percentage points in the same period (OECD, 2017c; Statistics Austria, 2017w).

In 2015, the largest share of OOP was spent on ambulatory (extramural) curative and rehabilitative care (37.44%), especially for dental services (13.9% or €876 million) and on pharmaceuticals (21.4%), notably for over-the-counter (OTC) medicines (14% or €865 million). Also spending on long-term care (14.6%) and therapeutic appliances (12%) are among the largest shares of total OOP spending (see Table 3.7).

Direct payments for benefits not covered by SHI funds represented 15.8% of current health spending. Cost-sharing (user charges) for benefits partly covered by SHI funds was only 2.1% (or €754 million) of current health spending. It must be noted that the Austrian statistics presented in Table 3.7 include cost-sharing of patients visiting non-contracted physicians under direct payments, although this would usually be considered as cost-sharing.

OOP payments do not seem to constitute a significant barrier for accessing health care in Austria, mainly because of the existence of numerous exemptions (e.g. for low-income patients) and a prescription fee cap. However, there is evidence of inequalities across the insured due to different cost-sharing levels of different SHI funds (Mossialos et al., 2006; Unterthurner, 2007). Recent policy debates concern the harmonization of cost-sharing requirements across SHI funds for a total of 23 services and products, in particular for therapeutic aids (such as wheel chairs) and tick-borne encephalitis vaccination (HVB, 2017a).

■ 3.4.1 *Cost-sharing (user charges)*

In 2015, cost-sharing accounted for 12% of total OOP spending. Cost-sharing requirements vary between SHI funds. Specialist insurance funds under specialist insurance laws (including those of the self-employed and farmers) require cost-sharing across all types of ambulatory (extramural) medical care, while SHI funds under ASVG have fewer cost-sharing requirements.

Cost-sharing typically takes the form of co-payments for ambulatory (extramural) visits (including GPs and specialist physicians), inpatient stays, prescription pharmaceuticals, medical rehabilitation and therapy and visual aids. Table 3.8 provides an overview of cost-sharing regulations for SHI funds under ASVG.

TABLE 3.7 Structure of out-of-pocket payments by type of service, 2015

| OUT-OF-POCKET PAYMENTS (IN MILLION €) | TOTAL OOP (IN MILLION €) | OOP BY TYPE OF SERVICE (AS % OF TOTAL OOP) | DIRECT PAYMENTS (AS % OF TOTAL OOP) | COST-SHARING (AS % OF TOTAL OOP) |
|---|--------------------------|--|-------------------------------------|----------------------------------|
| Total | 6 287.19 | 100.00 | 88.01 | 11.99 |
| Inpatient care including day cases | 465.80 | 7.41 | 84.77 | 15.23 |
| General hospitals | 246.12 | 3.91 | 100.00 | 0.00 |
| Specialized hospitals | 147.89 | 2.35 | 52.03 | 47.97 |
| Residential long-term care facilities | 71.78 | 1.14 | 100.00 | 0.00 |
| Long-term care | 917.57 | 14.59 | 100.00 | 0.00 |
| Nursing and residential care facilities | 917.57 | 14.59 | 100.00 | 0.00 |
| Ambulatory (extramural) curative and rehabilitative care | 2 354.10 | 37.44 | 88.87 | 11.13 |
| Hospitals | 33.64 | 0.54 | 100.00 | 0.00 |
| Offices of general medical practitioners | 228.38 | 3.63 | 47.01 | 52.99 |
| Offices of specialist physicians | 426.83 | 6.79 | 95.61 | 4.39 |
| Dental practices | 876.25 | 13.94 | 86.04 | 13.96 |
| Other health care practitioners ¹ | 546.12 | 8.69 | 100.00 | 0.00 |
| Outpatient clinics | 242.88 | 3.86 | 100.00 | 0.00 |
| Home health care | 183.12 | 2.91 | 100.00 | 0.00 |
| Providers of home health care services | 183.12 | 2.91 | 100.00 | 0.00 |
| Ancillary services | 137.09 | 2.18 | 90.55 | 9.45 |
| Pharmaceuticals; other med. non-durables | 1 345.78 | 21.41 | 70.22 | 29.78 |
| Prescribed medicines | 400.72 | 6.37 | 0.00 | 100.00 |
| Over-the-counter medicines | 865.25 | 13.97 | 100.00 | 0.00 |
| Other medical non-durables | 79.81 | 1.27 | 100.00 | 0.00 |
| Therapeutical appl.; other medical goods | 752.52 | 11.97 | 99.02 | 0.98 |
| Glasses and other vision products | 463.39 | 7.37 | 99.89 | 0.11 |
| Hearing aids | 48.69 | 0.77 | 97.68 | 2.30 |
| Orthopaedic appliances and prosthetics | 86.21 | 1.37 | 97.63 | 2.37 |
| All other medical durables | 154.24 | 2.45 | 97.62 | 2.38 |
| Preventive care | 131.21 | 2.09 | 100.00 | 0.00 |

Notes: ¹ Other health care practitioners refer to paramedical and other independent health practitioners (other than general or specialist physicians) e.g. nurses and midwife offices, physiotherapists, or dietitians (see OECD, Eurostat, WHO (2011) SHA, subcategory HP.3.3).

Source: OECD, 2017c; Statistics Austria, 2017w

Although co-payments in general apply for all patients, exemptions exist for certain population groups, e.g. for patients with notifiable infectious diseases, persons in compulsory community service or asylum seekers under federal care, pensioners entitled to compensatory allowances, children or co-insured dependants up to the age of 18. These groups are exempted from prescription fees and a range of further co-payments. Exemptions from co-payments vary per type of service and across SHI funds.

Social insurance legislation lays down guidelines for what constitutes “requiring social protection” for the purposes of exemption from prescription fees. Exemption from prescription fees acts as a marker for a range of other exemptions. The proportion of insured individuals that are exempt from prescription fees varies significantly across SHI funds. Considering regional SHI funds, the share of the insured exempted from prescription fees was lowest in Burgenland (2%) and highest in Vienna (28%) in 2016 (Wilbacher, 2018). That includes, for instance, single people whose monthly net income in 2017 did not exceed €909.42 (for married couples: €1 363.52). For individuals with a chronic illness who can demonstrate associated high costs, these income limits are raised to €1 045.83 for singles and €1 568.05 for married couples. Furthermore, for every dependent child living in the household, the income limit increases by €140.32 (values for 2018 under ASVG). In addition, there is a prescription fee cap of 2% of an individual’s annual net income since 2008 (see section 5.6.1).

Cost-sharing is primarily used as an instrument for cost containment and for directing patients towards GPs and ambulatory specialists. With the aim of relieving SHI funds, health care reforms between 2000 and 2005 increased cost-sharing for inpatient stays and visual aids (Steiner, 2016; Unterthurner, 2007).

■ 3.4.2 *Direct payments*

Direct payments for medical goods and services not covered by SHI funds made up 88.0% (€5 533 million) of total OOP payments in 2015 (see Table 3.7). The largest share (37.8% of direct payments) was related to ambulatory (extramural) curative and rehabilitative care. This includes visits to GPs and specialist physicians without a contract with the SHI funds, but also direct payments for dental care (€754 million or 13.6%) (see section 5.12).

TABLE 3.8 Cost-sharing regulations by type of health service for ASVG-insured people

| HEALTH SERVICE | TYPE OF COST-SHARING | LEVEL OF COST-SHARING, 2017 | EXEMPTIONS AND/OR REDUCED RATES | CAP ON OOP SPENDING |
|---|--|--|---|--|
| Ambulatory (extramural) care (including GP visits and specialist care) | Payment independent of contact | €11.70 Overall annual e-card service fee (2018) | <ul style="list-style-type: none"> • Patients with minor employment • Employees not receiving compensation as of 15. November (e.g. in case of maternity benefit, maternity/paternity leave, military or community service) • Pensioners • Future pensioners, who are known to be unsubscribed from statutory health insurance in the first quarter of the following year. • Persons exempt from prescription fee for social reasons • Conscripts and persons in compulsory community service • Asylum seekers under federal care • Co-insured dependents | - |
| | Extra billing/ Co-insurance (for non-contracted private GPs/ specialist care) | Usually 80% of the tariff set by the insurance funds is reimbursed by insurance funds | <ul style="list-style-type: none"> • Mother-child-pass (screening programme) • Medical check-ups | |
| Prescribed medicines | Co-payment | €6.00 per prescription (2018) | <ul style="list-style-type: none"> • Pensioners eligible for compensatory/supplementary allowance • Patients with infectious diseases • Persons in compulsory community service and their dependants • Asylum seekers under federal care • Patients with a monthly net income below a threshold | 2% of annual net income ¹ |
| Inpatient care | Co-payment | €9.58–12.16 per day for insured inpatients €19.10–21.20 per day for dependents of insured persons | <ul style="list-style-type: none"> • Patients exempt from prescription fees • Inpatients up to the age of 18 • Inpatient stays due to childbirth • Inpatient stays due to organ donation and delivery • Inpatient stays due to communicable diseases or kidney disease/dialysis | For max. 28 days per year |
| Medical rehabilitation | Co-payment | €8.20–19.91 per day | <ul style="list-style-type: none"> • Patients with a gross income of less than € 909.42 per month | For max. 28 days per year |
| Therapeutic aids | Co-insurance Co-payment | 10% of the tariff or a minimum of €34.20 per prescription | <ul style="list-style-type: none"> • Patients up to the age of 15 • Patients (and their dependents) in need for social protection (living underneath a certain monthly net income¹; eligible for higher monthly family allowance) • Therapeutic aids in course of medical rehabilitation | Between €498.00-€1 328.00 per prescription depending on insurance fund |
| Visual aids | Co-insurance Co-payment | 10% of the tariff or a minimum of €102.60 per prescription | <ul style="list-style-type: none"> • Patients up to the age of 15 • Patients exempt from prescription fees | Between €498.00-€1 328.00 per prescription depending on insurance fund |

Note: ¹Patients have to pay a minimum of €222 (for 37 prescription) before the 2% threshold applies.

Sources: Prescribed medicines: BMGF, 2016f; HVB, 2016d; HVB, 2017n; Inpatient care: BMGF, 2016b; Medical goods/glasses: HVB, 2017n; Ecard: HVB, 2016a; HVB, 2017i

Other important categories of direct payments include payments for nursing and residential care facilities (€918 million or 17% of direct payments), OTC medicines (€865 million or 15.6 %)(Statistics Austria, 2017w).

■ 3.4.3 *Informal payments*

Data on informal payments is not systematically collected and analysed in Austria. A study by the European Commission suggested that informal payments are related to waiting lists and dual practices. Dual practice relates to ambulatory (extramural) services provided by publicly employed hospital physicians in their private practices outside the hospital. Patients may pay for these services informally with the expectation of receiving better treatment (European Commission, 2013a). A Special Eurobarometer Report on Corruption (2017) found that 9% of survey respondents in Austria reported having provided their physician with an additional payment, a valuable gift or hospital donation to obtain faster treatment. This is clearly above the EU-27 average of 5% and higher than in Bulgaria, Latvia and Poland (European Commission, 2017d).

A recent review on physician payment mechanisms suggests that the institutional design of special physician fees (for “special fee class” rooms in public hospitals, see section 3.5.1) and dual practices pave the ground for two-tier medicine in Austria (Sommersguter-Reichmann and Stepan, 2017). Two-tier medicine in this context mainly refers to prioritization of patients with VHI that are moved up or bypass public waiting lists. In an anonymous patient survey, 6.5% of respondents stated that they had been offered shortened waiting times in return for direct private payment and 7.4% were offered earlier treatment when visiting the physicians’ private practices (Czypionka et al., 2013).

■ 3.5 **Voluntary health insurance**

■ 3.5.1 *Market role and size*

Voluntary health insurance (VHI) has mainly a supplementary function in the Austrian health system and can take various forms. The most common

type of supplementary health insurance covers extra amenities in the hospital sector like accommodation in “special fee class” rooms in hospitals (e.g. single rooms), costs of transportation to hospitals and free choice of hospital physicians (Pruckner and Hummer, 2013). In 2016, nearly two thirds of total VHI expenditure was spent on this type of insurance (VVÖ, 2017). The second most common type of VHI offers more choice of ambulatory care providers, covering fees of physicians without SHI contracts, medicines and medical aids in the ambulatory care sector. Spending on this scheme increased from 15.3% to 21.0% of total private health insurance expenditure between 2012 and 2016. A hospital day fee insurance is mainly taken up by the self-employed as it pays per diems during hospital stays or inability to work (7.5% of total private health insurance expenditure). VHI for dental care not included in the statutory benefit package also plays a role (2.9% of total private health insurance expenditure in 2016).

In 2015, VHI financed 4.9% of current health expenditure (OECD, 2018b) and 20.2% of private current health expenditure (see also Table 3.1). In 2016, more than one third of the population (36.5%) were covered by one form of VHI (VVÖ, 2017). According to a survey, the main motivations for individuals to purchase VHI for hospital care were access to better medical care (36% of respondents), coverage gaps of SHI (20%), increased attention by carers (17%), comfort and accommodation (13%), shorter waiting times (10%) and free choice of physicians (5%) (Pruckner and Hummer, 2013).

■ 3.5.2 Market structure

Socioeconomic characteristics of those buying VHI are not publicly available. The uptake of VHI varies largely by *Länder*, from 25.2% in Lower Austria to 53.5% in Carinthia in 2016. It is unlikely that only socioeconomic differences account for this geographical variation in coverage of VHI (Czypionka and Sigl, 2016).

The market for VHI is highly concentrated with four players that had more than 95% market share in 2016: UNIQA Österreich Versicherungen AG (a subsidiary of UNIQA Insurance Group AG) (46.6% market share), the Vienna Insurance Group (18.8%), Merkur Versicherung AG (16.5%) and Generali Versicherung AG (13.3%) (VVÖ, 2017).

■ 3.5.3 *Market conduct*

In Austria, there is no obligation to accept applicants for VHI. The selection of insured is risk-based, and premiums and benefit packages vary by risk group. Contracts with private health insurances are for life and can be terminated by the insurer only in certain cases (e.g. failed payment of premiums (VVÖ, 2013)). The insured can terminate the contracts once a year.

Private health insurances have contracts with most Austrian hospitals that determine fee schedules and allow direct billing (VVÖ, 2013). Contracts are negotiated between providers or regional medical chambers on behalf of physicians employed in hospitals and the Austrian Voluntary Insurance Association on behalf of private health insurance companies. Public hospitals receive a per diem fee for patients with VHI to cover additional costs for higher-quality accommodation. In addition, doctors receive fee-for-service payments on top of their salaries although a share is kept by the hospital. It has often been argued that this additional income helps to attract and keep highly qualified doctors within public hospitals but also contributes to the overall budget of public hospitals (Pruckner and Hummer, 2013).

■ 3.5.4 *Public policy*

As part of the private insurance market, VHIs are regulated by the Insurance Contract Act and the Law on the Supervision of Insurance Undertakings. Similar to all other insurance companies VHIs are also supervised by the Austrian Financial Market Authority (*Finanzmarktaufsicht*) (Czypionka and Sigl, 2016). Previous tax deductions for VHIs are being phased-out by 2020 for contracts signed before 2016 and are not applicable for newly signed insurance contracts. In-kind and cash benefits from VHI are not taxed.

■ 3.6 **Other financing**

■ 3.6.1 *Parallel health systems*

The military health service can be characterized as a parallel health system. The health status of members of the armed forces and civilian employees

of the Austrian Armed Forces are under the responsibility of the military health service. The Austrian Armed Forces operate four separate hospitals with physicians, paramedics and nurses. During military service, SHI coverage remains dormant for conscripts (no contributions need to be paid and no benefits can be received). However, co-insurance of relatives remains active. In case of illness or injury, military doctors decide whether treatment is appropriate in military facilities. If treatment in civilian health facilities becomes necessary the Ministry of Defence covers costs incurred.

A second parallel health system exists for prisoners and is under the responsibility of the Federal Ministry of Justice (BMJ). Prisoners are not covered by the SHI system and receive health services in prisons from employed personnel and/or external physicians. In the latter case the BMJ pays tariffs negotiated with SHI funds. GPs hold consulting hours in all prisons every week. If medical treatment in other hospitals is required, the BMJ is charged a daily lump sum.

Besides hospitals financed via LGFs or the Private Hospitals Financing Fund, seven acute care accident hospitals are operated and financed by the accident insurance funds (*Allgemeine Unfallversicherungsanstalt*). Their main purpose is to treat work-related accidents. Given the steadily decreasing incidence of work-related accidents (only 18% of ambulatory (extramural) visits and 11% of admissions to these accident hospitals in 2015), the remaining capacities are used to treat sports- or leisure-related accidents. In 2015, costs of treatment in accident hospitals amounted to €364 million. To compensate for accommodation and treatment of patients who do not have work-related injuries, SHI funds transferred €86 million to the accident insurance funds in 2015 (AUVA, 2016a; AUVA, 2017a).

■ 3.6.2 Long-term care financing

In 2015, Austria's total expenditure on long-term care amounted to 1.6% of GDP, of which around 0.3% was privately financed (Grossmann and Schuster, 2017). For services (in-kind benefits), around 60% of LTC spending is financed by general taxes from different government levels. In 2016, the remaining share, i.e. about 40% of LTC expenditure on services (or

€1 361 million), was covered by private households through means-tested contributions or for care provided at home (Statistics Austria, 2017k). Public expenditure for long-term care services (in-kind benefits) amounted to €3 421 million in 2016. Long-term care services are provided by private and public home care providers while residential facilities are planned, regulated and funded by state governments and municipalities.

The Austrian long-term care (LTC) system provides two types of universal needs-oriented LTC benefits, which were initially introduced with the Long-Term Care Allowance Act (Bundespflegegeldgesetz, 1993): (1) the care allowance (*Pflegegeld*), a cash benefit granted for people with care needs, and (2) means-tested in-kind benefits. The care allowance is a needs-based and non-means-tested cash benefit for all citizens requiring more than 65 hours of care per month. It was paid to 455 354 recipients in 2016 amounting to €2 587 million (Statistics Austria, 2017m). The care allowance is funded by the federal government from general tax revenues.

In 2007, an additional subsidy was introduced to facilitate the hiring of 24-hour carers in private households. It is aligned with the LTC allowance scheme and is financed both by the *Länder* and the federal government from general taxation (see section 5.8).

In 2011, a LTC fund (*Pflegefonds*) was created to allow for financial compensation from the federal to the *Länder* and the municipality level as both *Länder* and municipalities faced increasing problems in financing home care and nursing home service provision. The LTC fund receives general tax revenues (amounting to a budget of €350 million in 2016) which are then redistributed to the *Länder*. Additionally, the LTC fund law reserves up to €18 million annually for palliative and hospice care for the period 2017 to 2021, funded by the federal government, *Länder* and SHI funds in equal parts (Pflegefondsgesetz, 2011). The LTC fund covered €300 million or 7% of LTC expenditure in 2015. To accommodate for rising LTC spending caused by population ageing, the revenue of the LTC fund will be increased to €417 million until 2021.

■ 3.6.3 Other sources of financing

Several private, non-profit organizations (e.g. the Red Cross, the Samaritan's Association) play a substantial role in providing specific health services (e.g.

emergency transport) in the Austrian health and social care system. Their services are co-funded by membership contributions and donations and are supported by voluntary work.

■ 3.7 Payment mechanisms

■ 3.7.1 *Paying for health services*

HOSPITAL INPATIENT SERVICES

Since 1997, inpatient health care services in public and private non-profit (funds) hospitals and private for-profit hospitals (funded by the Private Hospitals Financing Fund) are mainly financed on the basis of a DRG-like budget allocation system, also known as the Austrian DRG system (*Leistungsorientierte Krankenanstaltenfinanzierung*, LKF). In addition, public and private non-profit hospitals are financed via coverage for operational losses (*Betriebsabgangsdeckung*) by the hospital owners or operators (the *Länder* in case of public hospitals) as well as “special fee class” (Table 3.10).

The LKF system

The LKF system was introduced in 1997 to increase transparency and efficiency, with the ultimate aim to contain hospital budgets. Prior to this, hospitals were financed on a per diem basis (BMGF, 2016e). The LKF system distinguishes between two areas: the nationally uniform LKF core area, and the LKF steering or governance area, which allows *Länder* to determine *Länder*-specific allocation rules on the basis of the core area.

The LKF core area consists of a patient classification system and the rules for determining the relative costliness of cases in terms of so-called LKF points, which are similar to DRG weights in other countries (BMGF, 2016e). Almost every inpatient case in both funds hospitals and hospitals funded by the Private Hospitals Financing Fund is assigned to one of 976 procedure- and/or diagnosis-related case groups (*leistungsorientierte Diagnosefallgruppen*, LDF groups) in a three-step procedure:

- First, the patient case is designated as procedure-related (if a main surgical service or a significant medical service was performed during the stay) or diagnosis-related (otherwise).
- Second, the patient case is classified as one of 202 procedure-related groups or one of 220 diagnosis-related groups. These 422 groups summarize procedures or therapeutic episodes that are assumed to incur similar costs.
- In a third step, a decision-tree classifies patients of these main groups into one of the 979 LDF groups (448 procedure-related, 531 diagnosis-related). This classification is based on detailed patient- or stay-related characteristics, e.g. age, main diagnosis, or specific services provided (such as expensive chemotherapies) and aligns payments more closely to expected costs of patient cases.

Every LDF group is associated with a specific point-value (score) that represents the average costs of all patients in that LDF and includes a range of expected lengths of stay. Average costs are determined on the basis of micro-costing with data from selected reference hospitals. Associated scores are designed to cover all costs, including indirect costs of administration, depreciation of fixed capital not attributable to specific services (e.g. infrastructure) and other services, and are accounted for via mark-up rates to direct costs. If special care is provided, e.g. in an intensive care unit (ICU) or a psychiatric or neurological ward, the LDF flat rate is supplemented with a mark-up to account for additional costs that accrue in these departments.

An interdisciplinary working group of experts from different fields regularly updates the LKF model to introduce new procedures or account for price changes. Minor changes of the LKF model are based on regularly performed simulations, while micro-costing is performed less regularly (in 1999 for the models 2002–2008, in 2005 for 2009–2016, and in 2014 for 2017 and after) (BMG, 2010).

While the amount of points assigned to an inpatient case is determined from the point-value of the relevant LDF group and assorted mark-ups (e.g. ICU, long stay, etc.), the effective pay-out from the LKF system from LGF – that is, the amount in euros paid out per point produced – may vary according to:

- regulations set by the *Länder* in the “LKF steering area”;
- the amount of resources available in the LGF.

In addition, some admissions are not classified into LDFs and LKF points are awarded based on length of stay. This includes follow-up treatment of neurologic patients, acute geriatrics, remobilization and youth psychiatry.

The LKF steering area allows state governments to allocate funding based on specific functions of hospitals (i.e. centralized or specialized care, state provider) that are of particular significance in the *Land* (BMG, 2010). In principle, the budget of the LGF is divided between hospitals on the basis of LKF points (core area) and other (*Länder*) criteria (steering area). However, the distribution of funds between the steering area and the core area as well as the distribution of the steering area funds are within the discretion of the LGF. Typically, funds from the LKF steering area are allocated as different mark-ups (depending on the type of hospital) to payments based on LKF points (BMGF, 2010). These additional funding options can be used at the discretion of the State Health Platforms (bodies of the LGF) to create different conditions and incentives for hospitals (Czypionka et al., 2008).

As the system is used to allocate a fixed budget for the LGF, an increase in LKF points produced by hospitals reduces the value of one LKF point. This is because statutory LGF resources are determined by social security contributions and general taxation (see Figure 3.6). As a result, pay-out via the LKF system does not (necessarily) cover total hospital costs, and public hospitals depend on additional funding via special class fees, the LKF steering area or coverage of deficits by the hospital owner.

Private for-profit hospitals receive public funding via the LKF system (see above) as well as private payments. As with funds hospitals, pay-out per point from the LKF system depends on the amount of funds available in the relevant source of financing, the Private Hospitals Financing Fund, which pools funds allocated to private hospitals. Private for-profit hospitals are not eligible for funds from the LKF steering area.

Hospitals that have contracts with SHI funds may charge the Private Hospitals Financing Fund directly. Hospitals without SHI contracts charge their patients who are then reimbursed by the Private Hospitals Financing Fund subject to the SHI benefits catalogue, determining which services and to what extent their costs are covered.

Cover for operational losses

The share of LKF in total hospital financing by the *Länder* must exceed 50% by law but, beyond that, the *Länder* can determine freely the degree to which to fund their hospitals via the LKF system versus cover for operational losses. Since deficits of hospitals will be covered by the *Länder*, the degree to which incentives in the LKF system affect hospital operation depends on the proportion of compensation payments versus funding via the LKF system (see Table 3.9).

TABLE 3.9 Share of cover for operational losses in financing of funds hospitals across *Länder*, 2016

| | BGL | KTN | NÖ | OÖ | SBG | STM | TIR | VBG | VIENNA | AUSTRIA |
|--|-----|-----|----|-----|-----|-----|-----|-----|--------|---------|
| Financed via cover for operational losses | 30% | 39% | 2% | 41% | 21% | 35% | 9% | 2% | 41% | 28% |

Notes: BGL, Burgenland; KTN, Carinthia (Kärnten); NÖ, Lower Austria (Niederösterreich); OÖ, Upper Austria (Oberösterreich); SBG, Salzburg; STM, Styria (Steiermark); TIR, Tyrol (Tirol); VBG, Vorarlberg

Source: compilation by the authors

HOSPITAL OUTPATIENT SERVICES

Hospital outpatient (intramural) services are also financed via LGFs. Payment mechanisms used to vary across regions and were based on DRGs (outpatient LKF system), global budgets, fee-for-service, or a mixture thereof. As a result of the 2017 health reform a unified catalogue of hospital outpatient and ambulatory (extramural) physician services was introduced. For hospital outpatient services, this catalogue will serve as the centrepiece for a new DRG-based payment system (*LKF ambulant*). After a 2-year transition period for regional testing, the system is planned to be rolled-out nationwide by 2019 (BMGF, 2017aq; ZS-G, 2017).

The new outpatient LKF system also assigns points to services provided in hospital outpatient departments. In contrast to the LKF system for inpatient services, payment for outpatient hospital services is scaled to cover only 50% of total costs. The remaining 50% are attributed to the “structural

component” of the LKF system – fixed budgets that are set by the LGF and account for public supply mandates and contingency costs. This restriction of points-based reimbursement is expected to discourage overutilization of capacities (BMGF, 2017aq).

Besides the outpatient LKF system, a cross-sectoral documentation of diagnoses is planned to be implemented by the end of the current health care reform period (in 2021) (ZS-G, 2017).

AMBULATORY (EXTRAMURAL) CARE

Ambulatory health services are provided by GPs, specialist physicians, dentists, allied health professionals and outpatient clinics. Payment mechanisms for these services depend on whether they are part of the catalogue of reimbursable services of the SHI funds, the provider is included in the collective contracts with the HVB and the location-based staffing plan, and the provider has a contract with the patients’ SHI fund (see section 2.8.2). If these conditions are not met, the provider charges the patient directly. The patients can claim reimbursement for these payments for up to 80% of applicable SHI tariff. Private health insurance may cover the difference between non-contracted provider fees and those reimbursed by SHI.

The catalogue of reimbursable services, which is part of the collective contract, includes fee-for-service payments and contact capitations, i.e. fees that can only be charged once per patient and quarter irrespective of the number of consultations (but not if the patient never seeks care). For example, the first GP consultation within a calendar quarter will result in a higher total fee than subsequent visits, since the provider may charge the contact capitation only once per calendar quarter. However, if the patient visits another GP in the same quarter, the new GP is also allowed to charge the contact capitation.

The mix of payment methods may vary across specialities and/or regions. GPs generate only about a quarter of their revenues based on service fees and three quarters based on contact capitations (Jung, 2016). In tariff regulations for specialist physicians, contact capitations play a substantially smaller role.

Many collective contracts specify budget ceilings up to which individual providers may charge the SHI funds for a specific type of service. Budget

ceilings are a contested issue and subject to continuous public debate. SHI funds are in favour of budget ceilings as they allow containing budgets and decreasing unit prices if volumes increase. The Austrian Medical Chamber points out that budget ceilings create long waiting times for specific services. As a result, paying OOP to bypass waiting lists (see section 3.4.3) or taking-up VHI to reduce waiting time is incentivized but creates inequalities in access to health services (Die Presse, 2015) (see section 7.3.2). Following public debate, budget ceilings were abolished for CT and MRI scans in 2017/18 (Die Presse, 2017).

Many physicians practice without an SHI contract (*Wahlärzte*) because the number of contracts with SHI funds is limited based on staffing plans (see section 3.3.4). In addition, some physicians prefer not to contract with SHI because this allows greater flexibility with regard to fee levels, opening hours, and SHI insurance status of patients. Non-contracted physicians are always paid fee-for-service and they may set their fees without any restrictions (BMGF, 2017am). These incentives have also contributed to an increase of the number of non-contracted physicians since 2000, while at the same time the number of physicians with SHI contract stagnated (see sections 4.2.1 and 7.3.2).

PHARMACEUTICAL CARE

The costs of pharmaceuticals dispensed during inpatient stays are included in the associated LKF points. In the ambulatory sector, SHI funds cover most of the costs for prescribed medicines (except for the prescription fee).

- Remuneration of wholesalers and pharmacies is subject to statutory regressive mark-up schemes on regulated prices. For wholesalers, mark-ups depend on the classification of the pharmaceutical in the positive list, according to which pharmaceuticals either belong to green, yellow and red boxes (see section 2.8.4). Pharmaceuticals included in the yellow or green box of the positive list are subject to mark-ups of 7% to 15.5% of the ex-factory price (up to a maximum of €23.74 for products priced at €339.15 or higher).
- Pharmaceuticals in other boxes of the positive list, or pharmaceuticals that are not listed in the positive list, are subject to mark-ups

of 9 to 17.5% of the ex-factory price (up to a maximum of €30.52 for products priced at €339.15 or higher) (BMGF, 2004).

For pharmacies, mark-up schemes depend on the customer.

- Community pharmacies face mark-ups ranging from 12.5% to 55% of the pharmacy purchasing price (which is the ex-factory price plus the wholesalers' mark-up), as well as an additional "private customer mark-up" of 15%.
- "Privileged customers" such as SHI funds or *Länder* and associated institutions as well as non-profit hospitals benefit from lower mark-ups of 3.9% to 37% of the pharmacy purchasing price (Österreichische Arzneitaxe, 1962).

All mark-up schemes, except the fixed 15% "private customer mark-up", are designed as staggered regressive mark-ups, i.e. mark-ups are higher for lower-priced products. Note also that the law sets *maximum* mark-ups. While wholesalers and pharmacies could set lower mark-ups, in practice they correspond to these maximum values (Zimmermann and Rainer, 2018).

In 2015, pharmacies dispensed medicines and medical non-durable goods worth €4 339 million, of which 77.7% were for prescribed medicines and 20.4% for OTC products (OECD, 2017c).

REHABILITATIVE CARE

Rehabilitative care provided in acute care hospitals and specialized rehabilitation centres are excluded from the LKF system and paid per diem. Patients can use rehabilitative care after inpatient stays upon application to the SHI funds and are charged income-based co-payments of up to €19.91 per day. Rehabilitation centres are either operated by SHI funds directly or have contracts with SHI funds that stipulate payment schemes.

While SHI funds are responsible for rehabilitative care for the general population, pension insurance funds cover expenses for pensioners and people whose medical condition would have caused occupational disability. Accident insurance covers expenditures for rehabilitative care following work accidents.

TABLE 3.10 Provider payment mechanisms

| | | FEDERAL MINISTRIES (E.G. BMASGK) | LÄNDER | SOCIAL HEALTH INSURANCE (SHI) ¹ | PRIVATE VOLUNTARY HEALTH INSURANCE (VHI) | COST-SHARING | DIRECT PAYMENTS |
|----------------------------------|---------------------------------------|--|--|--|--|---|--|
| INPATIENT SERVICES | HOSPITAL SERVICES | Funded via LGF or PRIKRAF. The DRG-based system (LKF system) is complemented by cover for operational losses (public hospitals only) | | | FFS & PD | Per diem fee, cost-sharing for co-insured in some health funds | Non-insured for all services, insured for services not covered (e.g. cosmetic surgery); fees for special class facilities |
| | HOSPITAL "SPECIAL FEE CLASS" SERVICES | | | | PD & PS | | Extra fees for special class (PD, PS) by Land |
| AMBULATORY (EXTRAMURAL) SERVICES | HOSPITAL OUTPATIENT SERVICES | Funded via LGF. A DRG system (<i>LKF ambulanz</i>) is being planned (50% FFS + 50% prospective budget) | | | | | |
| | GPS & SPECIALISTS (INCL. DENTISTS) | | | FPP & FFS (mix varies by SHI fund, speciality and/or region) | FFS | Fixed percentage of fees in health insurances of specific professions (e.g. farmers, state employees) | Non-insured for all services; insured for services not covered and services of non-contracted physicians (80% of tariff is reimbursed) |
| | OUTPATIENT CLINICS | | | | | | |
| OTHER SERVICES | PHARMACEUTICALS | | | Mark-ups to reimbursable medicines | Reimbursement of defined supplementary medicine | Prescription fee | Mark-up to OTC medicines and medicines priced below the prescription fee |
| | REHABILITATION | | | PD | PD for services not covered by statutory insurance | Income-dependent PD | Fees for special class accommodations |
| | INPATIENT LONG-TERM CARE AND DAY-CARE | | Investment subsidies, daily/hourly rates vary by provider & region | Seizure of pensions in case of patient's illiquidity | | | Daily rates (some Länder) |
| | MOBILE LONG-TERM CARE SERVICES | | seizure of means-tested social aid benefits in case of patient's illiquidity | | Daily/hourly rates | Daily/hourly rates (means-tested) | FFS (some Länder) |

Notes: ¹ incl. other statutory insurance schemes, e.g. accident insurance, pension insurance
 FFS, fee-for-service; FPP, Fee per patient/period; LGF, state health fund; PD, per diem; PRIKRAF, Private Hospitals Financing Fund; PS, per service; OTC, over-the-counter medicine
 Source: compilation by the authors

Total expenditure for rehabilitative care (in all settings) was €2 291 million in 2015. In inpatient settings, government/compulsory financing schemes covered 71% of total costs. This share was considerably smaller in ambulatory (extramural) settings (42%) where private OOP payments played a substantial role (56%).

EMERGENCY CARE SERVICES

Emergency care that covers public pre-hospital emergency health care, including the ambulance service, is provided by municipalities, cities and *Länder* (see section 5.5). Ambulance transport fees are primarily covered by SHI funds. A budget from municipalities covers costs for availability of providers and capital investment. If transport of a patient is not medically necessary after an emergency care intervention, providers cannot charge transport fees. Tariffs for emergency care services differ between municipalities. Patients are charged fees if they are not insured by SHI, or if transportation turned out to be medically unnecessary (Andreas, 2009; Austrian Red Cross, 2017c).

■ 3.7.2 *Paying health workers*

In the ambulatory (extramural) sector, physicians mainly practise independently and are self-employed. Their remuneration is based on the fees they bill to SHI funds. According to the income report of the Austrian Court of Auditors the annual median gross income of independently practising physicians varied between €86 512 for GPs, €99 704 for dentists and €120 589 for specialist practitioners in 2013 (Austrian Court of Auditors, 2016b).

Fees charged by speciality can also be disaggregated in the accounting data of SHI funds. The remuneration varies significantly across specialities, with radiologists charging SHI funds nearly four times the fees charged by GPs. The accounting data also shows that between 2005 and 2015 the average remuneration of GPs increased by 10.2% while it increased by 45.1% for orthopaedists in the same period.

In the hospital sector, physicians, nurses and allied health professionals are employed by hospital operators. Collective bargaining agreements define

remuneration schemes and working conditions (i.e. working hours). However, hospitals operated by the *Länder* apply separate collective bargaining agreements resulting in different wage levels in every *Land*. Also hospitals operated by religious associations and private hospitals have separate collective bargaining agreements for their employees. Salaries of hospital physicians also vary substantially as they may receive income from special class fees from private health insurances (see section 3.5) in addition to their salary. Some employed hospital physicians also operate private practices. As a result, there are no reliable figures on total earnings of hospital physicians (der Standard, 2017; Sommersguter-Reichmann and Stepan, 2017).

Based on taxation data, the annual median gross income of health professionals with university education in 2015 was €45 887, while assistants earned €30 407 annually. In comparison, the annual median gross income of employed workers in Austria was €27 347 in 2015 (Statistics Austria, 2018d).

Physical and human resources

Austria has one of the highest rates of capital expenditure in health care among OECD countries, spending more than 0.7% of GDP in 2015. Capital expenditure has increased since 2000, in particular in private institutions. Medical equipment is relatively well distributed across the country due to national planning mechanisms and the number of units relative to the population is slightly above the EU-15 average.

The hospital inpatient sector in Austria remains very large. Despite reform plans to reduce the number of hospital beds, the beds-per-population-ratio in 2014 was one of the highest in the EU (5.84 versus 3.94 acute care beds per 1 000 population). Since 2007, the number of beds in DRG-financed acute care hospitals decreased by 8%, but this is a modest reduction compared to other European countries. Hospital utilization rates also decreased between 2006 and 2015, but Austria still has the second highest hospital discharge rate in the EU.

Development of information and communications technology and e-health has made considerable progress over the last decade. Implementation of the electronic health record (*Elektronische Gesundheitsakte*, ELGA) and its e-medication and e-report applications is currently ongoing, with nationwide rollout to all providers due to be completed by 2021. This aims to reduce organizational barriers, improve care coordination and empower patients.

Austria has the second highest density of practising physicians (510 per 100 000) in the EU after Greece – much higher than the average for EU countries (350 per 100 000) and has a tradition of being a net exporter of

doctors. However, also inside Austria, the density of physicians has grown more strongly since 2000 (by 34%) than on average in the EU (14%), mostly driven by a growth of specialist physicians. However, the number of ambulatory physicians who contract with SHI has stagnated over recent years. This leads to a rising imbalance and unequal distribution of doctors across regions, which is likely to be exacerbated by the ageing of contracted doctors. In contrast to physicians, Austria has relatively low numbers of nurses, although international comparisons of nursing staff are difficult because of limited data availability in Austria. A new mandatory health professional's register implemented in 2018 will allow better comparability in the coming years.

■ 4.1 Physical resources

■ 4.1.1 *Capital stock and investments*

Gross fixed capital formation in health care amounted to approximately €2 501 million in 2015, which corresponded to 6.7% of total health expenditure. More than half of this capital investment spending in the health sector was financed from public spending (€1 357 million). Thereof more than a half was allocated to the hospital sector. Table 4.1 shows current public and private health expenditure and investments in the period 2000 to 2015. Total capital investment has considerably increased over the last 15 years. In particular, private investments grew by nearly 150% while public investment increased only by 57%.

Compared to other countries, Austria invests heavily in the health sector. In 2015, the gross fixed capital formation in the health sector in Austria as a share of GDP was the highest among OECD countries for which data are available, amounting to 0.74% of GDP (OECD, 2017c) (see Figure 4.1).

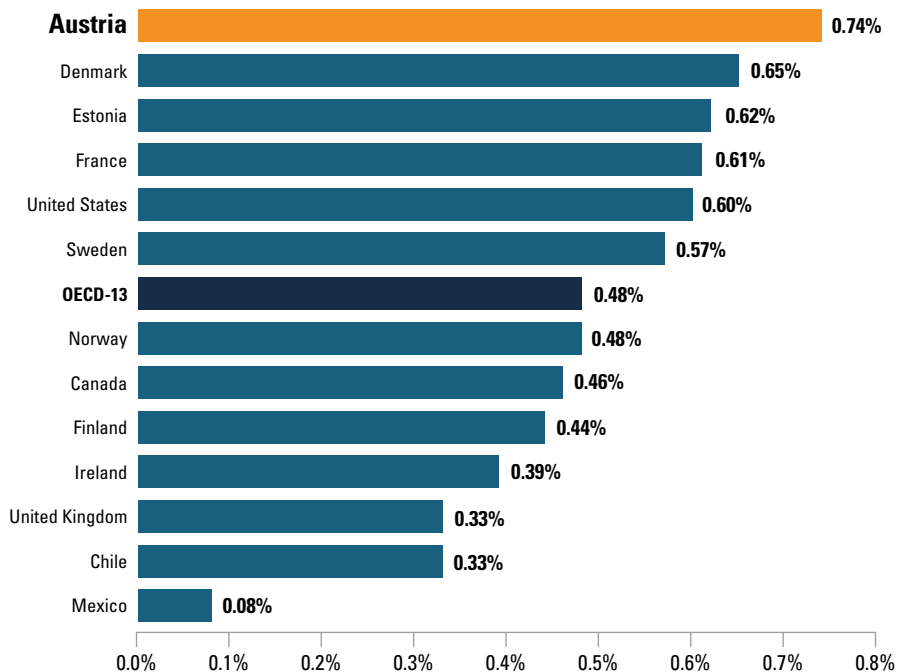
The responsibilities for investments in the health sector are divided between the *Länder* (and municipalities), SHI funds and private investors. The *Länder* and municipalities are responsible for financing and allocating investments in hospitals which are administered by the state health funds (*Landesgesundheitsfonds*, LGF). SHI funds invest in their own facilities such as outpatient clinics. Investments in ambulatory (extramural) practices are considered as private expenditure. However, if there is a vacant practice in

TABLE 4.1 Health expenditure and investments (current prices), 2000–2015
(in € millions), selected years

| | 2000 | 2005 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Total health expenditure | 20 982 | 25 828 | 31 839 | 32 767 | 34 573 | 35 254 | 36 485 | 37 578 |
| Current public health expenditure | 14 850 | 18 203 | 22 685 | 23 250 | 24 391 | 24 766 | 25 655 | 26 513 |
| Public investment | 861 | 1 003 | 1 269 | 1 295 | 1 394 | 1 400 | 1 425 | 1 357 |
| Annual growth rate of public investment (%) | | | | 2.0 | 7.6 | 0.4 | 1.8 | -4.8 |
| Current private health expenditure | 4 809 | 6 040 | 7 109 | 7 333 | 7 733 | 8 088 | 8 331 | 8 564 |
| Private Investment | 461 | 581 | 777 | 889 | 1 054 | 1 000 | 1 073 | 1 144 |
| Annual growth rate of private investment (%) | | | | 14.4 | 18.6 | -5.1 | 7.3 | 6.6 |
| Total investments | 1 322 | 1 584 | 2 046 | 2 184 | 2 448 | 2 400 | 2 498 | 2 501 |
| Total investments as % of total health expenditure | 6.3 | 6.1 | 6.4 | 6.7 | 7.1 | 6.8 | 6.8 | 6.7 |
| Public investments as % of public health expenditure | 5.5 | 5.2 | 5.3 | 5.3 | 5.4 | 5.4 | 5.3 | 4.9 |

Source: (OECD 2017c, Statistics Austria 2017t)

FIGURE 4.1 Gross fixed capital formation in the health care sector as a share of GDP, 2015



Source: Own illustration based on OECD (2018a)

the staffing plan, municipalities may offer incentives such as real estate, or the renovation of buildings to attract physicians. Since 2017, the Federal Health Agency (*Bundesgesundheitsagentur*, BGA) also allocates investment funds to selected supra-regional health care service departments that provide specialist care, for example, for highly contagious diseases or severe burns victims.

■ 4.1.2 *Infrastructure*

In 2016, Austria had 273 hospitals with 64 838 beds, of which 162 were acute care hospitals (48 816 beds). Nearly 93% of all acute care beds were located in funds hospitals (financed via the state health funds, LGF), accounting for about 95% of all acute care admissions. In addition, there are 83 rehabilitation and 28 long-term care hospitals (see Table 4.2). More than 900 outpatient clinics are also classified as hospitals according to the Federal Hospital Act (*Krankenanstalten- und Kuranstaltengesetz*, KAKuG, 1957) but they only offer ambulatory (extramural) care.

Austria has a very large hospital sector despite different reform initiatives that have aimed to reduce the number of hospitals and hospital beds. In 2014, the bed-per-population ratio in Austria (5.84 acute care beds per 1000 population) –was among the third highest (after Germany and Bulgaria) in the EU (EU average 3.94) (see Figure 4.2). Between 2007 and 2016, the number of acute care beds in funds hospitals declined by about 8%. This reduction is very moderate compared to other European countries like Finland, Denmark or Italy (WHO, 2017d) due to missing incentives to treat patients in ambulatory setting and the high level of fragmentation between the ambulatory and inpatient sector. The reform agenda 2017–2021 foresees to further reduce the number of hospital beds in the coming years (see section 6.1.4).

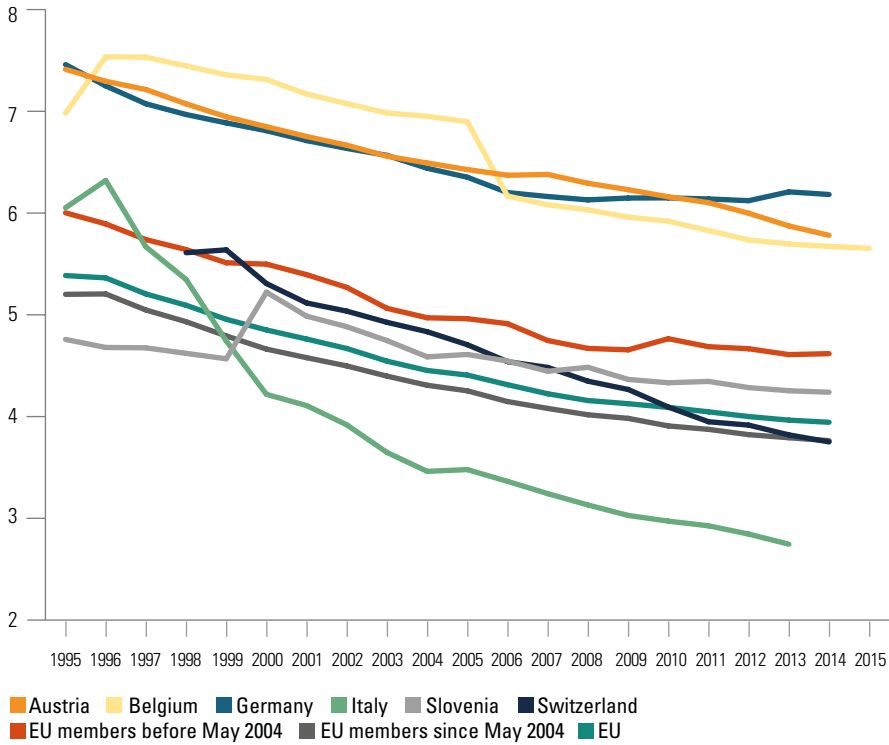
In 2015, about 850 nursing homes or residential care facilities provided 75 632 inpatient care places while 12 019 persons lived in alternative housing forms. Since 2000, the number of places in nursing homes or residential care facilities increased by more than 30%, as a result of population ageing and increasing demand for long-term care (BMGF, 2017k). Also, the number of hospitals and beds in rehabilitative care increased by around 40% between 2007 and 2016.

TABLE 4.2 Distribution of different types of hospitals and hospital beds, 2007–2016

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | CHANGE 2007–2016 |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------|
| HOSPITALS (NUMBER) | | | | | | | | | | | |
| Hospitals, total | 269 | 266 | 266 | 267 | 272 | 277 | 278 | 279 | 278 | 273 | 1.5% |
| Acute care hospitals | 184 | 181 | 178 | 177 | 176 | 175 | 172 | 169 | 166 | 162 | -12.0% |
| thereof funds hospitals | 132 | 130 | 131 | 130 | 128 | 127 | 126 | 123 | 120 | 117 | -11.4% |
| Rehabilitation hospitals | 59 | 61 | 63 | 65 | 70 | 76 | 79 | 81 | 81 | 83 | 40.7% |
| Long term care hospitals | 26 | 24 | 25 | 25 | 26 | 26 | 27 | 29 | 31 | 28 | 7.7% |
| HOSPITAL BEDS | | | | | | | | | | | |
| Hospital beds, total | 64 320 | 64 031 | 64 082 | 64 021 | 64 430 | 64 704 | 64 838 | 64 828 | 65 150 | 64 838 | 0.8% |
| per 1 000 population | 7.77 | 7.71 | 7.69 | 7.67 | 7.69 | 7.70 | 7.67 | 7.62 | 7.59 | 7.45 | -4.1% |
| Acute care beds | 53 127 | 52 589 | 52 200 | 51 745 | 51 445 | 50 815 | 50 098 | 49 706 | 49 177 | 48 816 | -8.1% |
| per 1 000 population | 6.41 | 6.33 | 6.26 | 6.20 | 6.14 | 6.04 | 5.93 | 5.84 | 5.73 | 5.61 | -12.5% |
| thereof in funds hospitals | 48 983 | 48 599 | 48 446 | 48 001 | 47 667 | 47 058 | 46 394 | 46 001 | 45 616 | 45 224 | -7.7% |
| per 1 000 population | 5.91 | 5.85 | 5.81 | 5.75 | 5.69 | 5.60 | 5.49 | 5.41 | 5.31 | 5.20 | -12.0% |
| Rehabilitation beds | 7 963 | 8 360 | 8 646 | 9 057 | 9 371 | 10 218 | 10 724 | 10 645 | 10 783 | 10 870 | 36.5% |
| per 1 000 population | 0.96 | 1.01 | 1.04 | 1.08 | 1.12 | 1.22 | 1.27 | 1.25 | 1.26 | 1.25 | 30.2% |
| Long-term care beds | 3 217 | 3 069 | 3 223 | 3 206 | 3 601 | 3 658 | 4 003 | 4 464 | 5 178 | 5 152 | 60.1% |
| per 1 000 population | 0.39 | 0.37 | 0.39 | 0.38 | 0.43 | 0.44 | 0.47 | 0.52 | 0.60 | 0.59 | 51.3% |

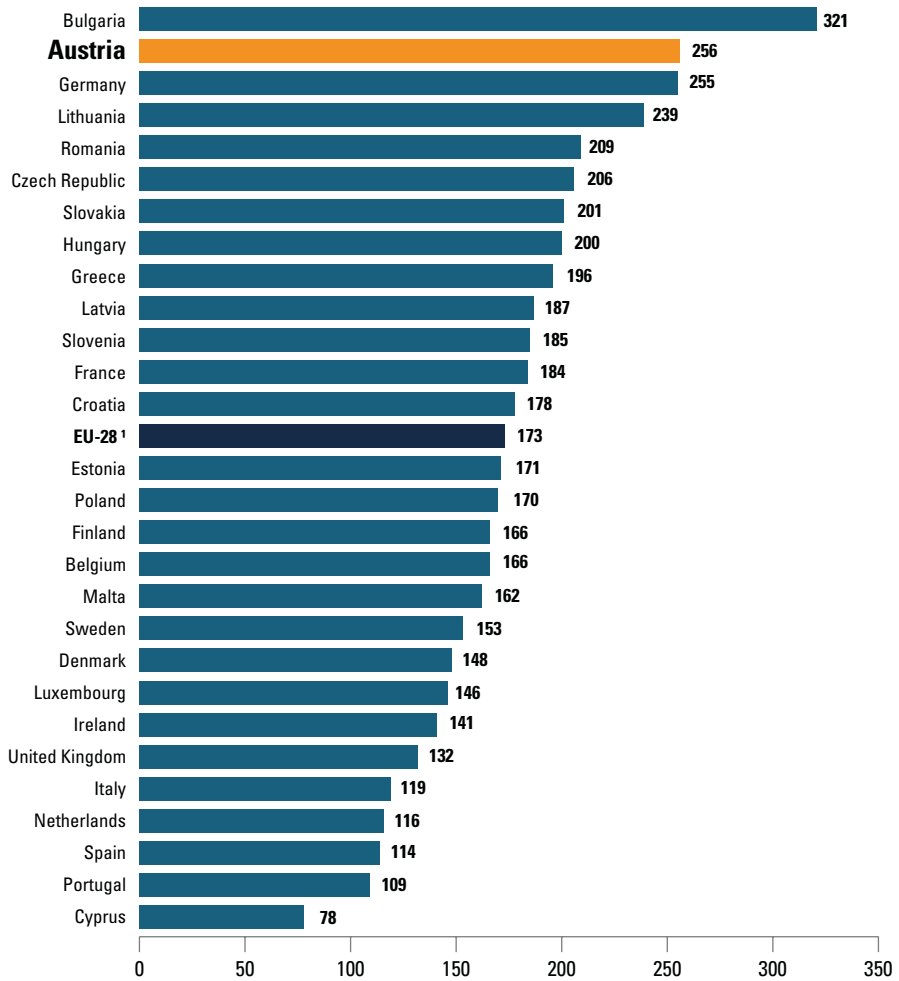
Source: (BMGF 2017k)

FIGURE 4.2 Acute care beds per 1 000 people, 1995 to 2015 (or latest available year)



Source: (WHO 2017c)

The level of activity in inpatient care facilities is also among the highest in Europe. Although utilization rates decreased by nearly 8% between 2006 and 2015, Austria still had the second highest hospital discharge rate in the EU with 256 discharges per 1 000 population in 2015. Also, the bed occupancy rate in acute care hospitals in Austria (74.3%) was below the EU-22 average (76.5%), declining slightly between 2006 and 2015 (see Figure 4.3 and Table 4.3). As in most European countries, the average length of stay in acute care hospitals decreased since the mid-1990s to 6.5 days in Austria in 2015, which was close to the EU average of 6.4 days (see Figure 4.4) (OECD, 2017a).

FIGURE 4.3 Hospital discharges per 1 000 population in the EU, 2015

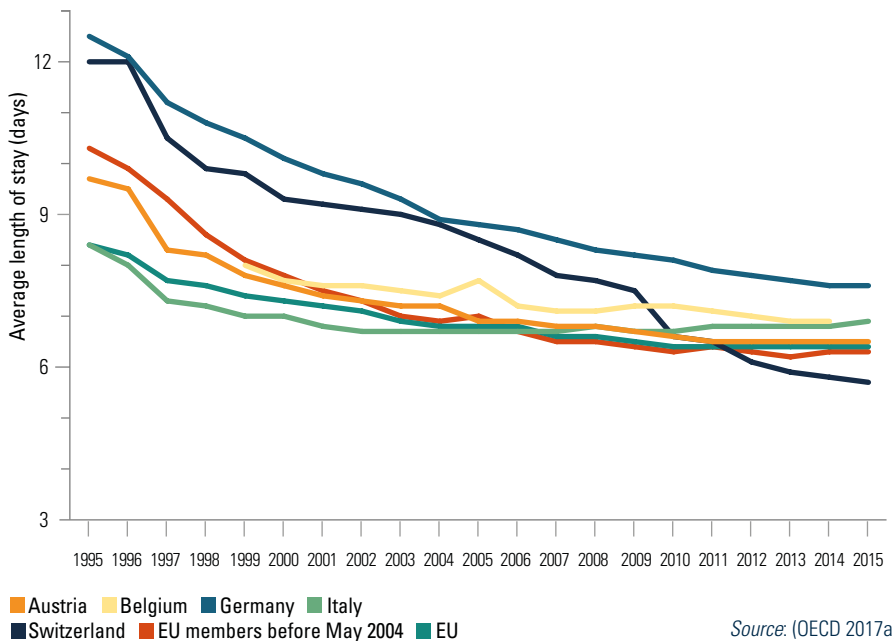
Source: (OECD 2017a)

TABLE 4.3 Hospital utilization indicators, 2006–2015

| UTILIZATION INDICATOR | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | CHANGE 2006–2015 |
|--|------|------|------|------|------|------|------|------|------|------|------------------|
| Average length of stay in all hospitals (days) | 7.9 | 7.9 | 7.9 | 7.8 | 7.9 | 7.8 | 7.9 | 8.1 | 8.2 | 8.5 | 7.6% |
| Average length of stay in acute care hospitals (days) | 6.9 | 6.8 | 6.8 | 6.7 | 6.6 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | -5.8% |
| Hospital discharges in all hospitals per 1 000 population | 277 | 279 | 281 | 279 | 276 | 274 | 270 | 266 | 263 | 256 | -7.6% |
| Hospital discharges in acute care hospitals per 1 000 population | 264 | 266 | 267 | 265 | 262 | 259 | 254 | 248 | 245 | 238 | -9.8% |
| Bed occupancy rate in acute care hospitals (%) | 78.0 | 77.7 | 78.5 | 77.9 | 77.0 | 76.3 | 75.2 | 75.4 | 75.0 | 74.3 | -4.7% |

Sources: Average length of stay and hospital discharge rate in all hospitals and acute care hospitals: OECD, 2018c; Bed occupancy rates: Eurostat, 2018a

FIGURE 4.4 Average length of stay for acute care hospitals in Austria and selected countries, 1995 to 2015 (or latest available year)



Source: (OECD 2017a)

■ 4.1.3 Medical equipment

The Austrian Structural Plan for Healthcare (*Österreichischer Strukturplan Gesundheit*) (GÖG, 2017e) and the Regional Structural Plans for Healthcare (*Regionale Strukturpläne Gesundheit*) (GÖG, 2017d) define the number of major medical equipment in both sectors to ensure equitable distribution across regions, i.e. the Austrian Hospitals and Major Equipment Plan (see section 2.5). Investment in medical equipment is financed separately for the inpatient and the ambulatory sector. The owners of hospitals (i.e. *Länder*) take financial investment decisions on medical equipment and may receive subsidies from the LGF (see section 2.8.6). Investments in medical equipment in the ambulatory sector are financed by ambulatory providers and later reimbursed by SHI funds via the catalogue of reimbursable services.

Table 4.4 shows the numbers of medical equipment units per 100 000 population in Austria and EU-15 countries. The number of units of major medical equipment relative to population in Austria is above the EU-15 average. Over the past 10 years (2006–2015) the numbers of major medical equipment remained stable, except for an increase of MRI and PET scanners that is mostly related to the growth of private investments in the ambulatory (extramural) sector (GÖG, 2017c). However, data needs to be interpreted with care, as not all Member States report national medical equipment data to international statistics. The majority of medical equipment in Austria is located in hospitals and is used for inpatient care and care provided by hospital outpatient departments. One exception and in contrast to many other European countries, are mammographs, which are mostly located in ambulatory settings. Data on the utilization of medical equipment is scarce and available only in terms of annual examination rates (per 1 000 inhabitants) in hospitals: 142.2 CT scans, 55.0 MRI scans and 4.1 PET scans per 1 000 inhabitants were performed in hospitals in 2015.

TABLE 4.4 Medical equipment per 100 000 inhabitants in Austria, 2006 and 2015

| ITEM | 2006 | | | | 2015 | | | | CHANGE 2006–2015 |
|--------------------------------|-----------|----------------------|---------|-------|-----------|----------------------|---------|-------|---------------------|
| | HOSPITALS | AMBULATORY SECTOR | TOTAL | | HOSPITALS | AMBULATORY SECTOR | TOTAL | | |
| | | | AUSTRIA | EU-15 | | | AUSTRIA | EU-15 | |
| CT scanners | 1.94 | 1.05 | 2.99 | 1.98 | 1.81 | 1.10 | 2.91 | 2.40 | -2.6% |
| MRI units | 0.96 | 0.73 | 1.68 | 1.18 | 1.09 | 1.02 | 2.11 | 1.95 | 25.4% |
| PET | 0.18 | 0.01 | 0.19 | 0.16 | 0.20 | 0.03 | 0.23 | 0.24 | 19.8% |
| Gamma cameras | 0.91 | 0.33 | 1.23 | 1.13 | 0.86 | 0.25 | 1.11 | 0.88 | -9.8% |
| Mammographs | n/a | n/a | n/a | 2.38 | 0.25 | 2.09 | 2.34 | 2.09 | n/a |
| Radiation therapy equipment | 0.48 | | 0.48 | 0.63 | 0.49 | 0.01 | 0.50 | 0.85 | 3.0% |

Notes: Notes: CT, Computed tomography; MRI, magnetic resonance imaging; PET, positron emission tomography
Sources: Eurostat, 2017g; GÖG, 2017c; OECD, 2017a

■ 4.1.4 Information technology

The share of private households with Internet access has increased by 42.8% since 2007, reaching 85.1% in 2016, equal to the EU average. While the share of persons, who used the Internet during the last three months is very high among younger age groups (97.6%, 16–44 years), only 50% of people aged between 65–74 years used the Internet in 2016 (Statistics Austria, 2016c).

In the past decade, health information has become widely available on the Internet in Austria via different reliable online health information platforms, which are maintained by publicly funded institutes with a public health-related mission, such as the Austrian health portal (<http://www.gesundheit.gv.at>). The Austrian health portal provides information on prevention, diseases and health services. Electronic directories provide specific information on hospitals (<http://www.spitalskompass.at>; www.kliniksuche.at), rehabilitative care facilities (<http://www.rehakompass.goeg.at>), facilities for drug misuse treatment (<https://suchthilfekompass.goeg.at/>) or breast cancer screening operators (<http://www.frueh-erkennen.at>). In 2016, two thirds of the Austrian population used the Internet to find health-related information (Statistics Austria, 2016d).

Information technology solutions have gained importance in the health care sector over the past decade. The foundation for an electronic health infrastructure was laid with the introduction of a standardized electronic health insurance card (e-card) in 2005. Today almost all Austrian hospitals and ambulatory (extramural) practices have access to the e-card system. The e-card operates on a key card principle and only contains the cardholder's administrative insurance data (i.e. patient's name, sex, birth date, and social insurance number) that show health care providers the insurance status of the patient. Health care data is not stored on the card but requested online via a secure data network. The e-card also allows to connect to a number of services: the electronic approval and application service (eBS; which allows electronic referrals to, e.g. CT, MRI examinations), the electronic medication approval service (ABS; the authorization process for medication which are subject to authorization), the electronic temporary disability report (eAUM; the electronic registration of sick certificate) or the electronic transmission of preventive medical check-up documents (DBAS). The e-card also records

the prescription fee limit and the preoperative questionnaire (PROP), which is an assessment tool for preoperative diagnosis in case of planned operations. Further, Austrian citizens can activate a “citizen card” function for accessing various e-Governance applications using the e-card (Sozialversicherungs-Chipkarten Betriebs- und Errichtungsgesellschaft m.b.H., 2017).

The Austrian e-health strategy was last updated in 2007. This update focused primarily on improving integration and interoperability of existing information systems of providers and the e-card to ensure stable exchange of information. The central element of the Austrian e-health strategy is ELGA (*Elektronische Gesundheitsakte*, electronic health record) (Pfeiffer, 2007). ELGA provides the opportunity to add and extend e-health applications for various health settings. Major benefits of ELGA are safe and reliable information transfer, as well as communication and workflow improvements. Patients’ health information (e.g. medical examinations, prescriptions and medication, allergy tests, blood group, laboratory and radiology tests) is made available to both patients and eligible providers in a highly structured manner and provides a full picture of a patient’s treatment pathway. This helps to avoid duplication of medical tests and to improve quality of care, patient safety, patient-centred care and ultimately patient empowerment. The limited liability company ELGA (GmbH) is responsible for the development of the national e-health infrastructure and the coordination of all relevant activities necessary to roll out the electronic health record.

The law that enabled the introduction of ELGA was adopted by Parliament in January 2013. In 2014, the ELGA Internet portal was launched allowing patients and health care providers to access ELGA documents and applications. The portal enables patients to restrict access to selected personal health information and to see who has consulted their individual records. Patients are enrolled in ELGA by default, but can also entirely opt-out of and opt-in again using the Internet portal (Bachner et al., 2012; Philippi, 2015).

ELGA has been rolled-out gradually with health care providers since December 2015 when a number of public hospitals and nursing care facilities started to use clinical e-reports (*eBefunde*) that contained discharge letters from hospitals, and laboratory and imaging results. In 2016 and 2017, more public and private hospitals and nursing homes were progressively

connected to ELGA and started to use clinical e-reports. In November 2017, 194 public health care providers including hospitals, nursing homes and outpatient clinics were actively or passively (only using the reading function) using e-reports (ELGA, 2017). In the ambulatory sector, the renewed ELGA regulation (ELGA-Verordnungsnovelle, 2017) mandates the stepwise rollout of ELGA to ambulatory health care providers and pharmacies which should be finished by mid-2019. Completion of the nationwide rollout of ELGA is expected by 2021 (ZS-G, 2017). ELGA should then also be available for home care providers and nursing homes (Philippi, 2015).

A pilot of an electronic medication record (*e-Medikation*) was started in 2016 in a district in Styria to collect information on prescribed and dispensed medicines (Bachner et al., 2017). The e-medication record intends to improve the quality, safety and efficiency of pharmaceutical care by flagging up contraindications to prescribing physicians and by avoiding duplicate prescriptions. The e-medication record and the clinical e-reports are gradually rolled-out to contracted physicians in the ambulatory (extra-mural) sector and pharmacies, followed by outpatient clinics, private clinics and dentists.

The introduction of an electronic vaccination record (*e-Impfpass*) is a further target of the current health reform period 2017–2021. Pilots are scheduled for 2018 (BMGF, 2017). Electronic vaccination records improve transparency and reduce inefficiencies such as redundant vaccinations by improving the availability of vaccination documentation.

■ 4.2 Human resources

■ 4.2.1 Health workforce trends

In 2016, around 282 600 health professionals (according to the statistical classification of economic activities in the European Community (NACE) Q86: *Human health activities*) were employed in the Austrian health sector, which corresponds to 65% of total health and social care employment. Between 2007 and 2016, the number of professionals employed in the health sector increased by 16%. This increase is particularly pronounced for specialist physicians and medical technicians. In the same period total employment

TABLE 4.5 Health professionals in Austria by professional group, 1995 to latest available year, selected years

| | 1995 | 2000 | 2005 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | CHANGE 1995–2015 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------|
| Practising physicians¹ | 351.3 | 385.3 | 431.8 | 479.7 | 484.4 | 489.8 | 499 | 504.8 | 509.9 | 45% |
| Total | 27 923 | 30 871 | 35 518 | 40 105 | 40 634 | 41 268 | 42 302 | 43 126 | 44 002 | 58% |
| per 100 000 inhabitants | 66.6 | 72.3 | 76.2 | 77.8 | 77.9 | 77.7 | 76.9 | 77.4 | 76.6 | 15% |
| Total | 5 291 | 5 794 | 6 266 | 6 507 | 6 534 | 6 550 | 6 523 | 6 614 | 6 609 | 25% |
| per 100 000 inhabitants | 143 | 181.4 | 211.1 | 240.4 | 242.6 | 250.5 | 261.7 | 268 | 274.7 | 92% |
| Total | 11 366 | 14 536 | 17 365 | 20 103 | 20 353 | 21 107 | 22 183 | 22 902 | 23 702 | 109% |
| per 100 000 inhabitants | 42.5 | 46.5 | 51.5 | 56 | 56.5 | 56.9 | 57.3 | 57.3 | 57.4 | 35% |
| Total | 3 379 | 3 722 | 4 232 | 4 685 | 4 743 | 4 797 | 4 853 | 4 893 | 4 906 | 45% |
| per 100 000 inhabitants | n/a | 576.9 | 599.3 | 653 | 662.7 | 665.6 | 669.4 | 679.1 | 680.6 | 18% |
| Total | n/a | 46 219 | 49 294 | 54 601 | 55 594 | 56 085 | 56 747 | 58 026 | 58 732 | 27% |
| per 100 000 inhabitants | 13 | 13.4 | 14.6 | 15.7 | 16 | 15.8 | 16.3 | 16.8 | 16.7 | 28% |
| Total | 1 030 | 1 073 | 1 198 | 1 313 | 1 338 | 1 329 | 1 379 | 1 434 | 1 439 | 40% |
| per 100 000 inhabitants | 18.1 | 19 | 20.7 | 22.8 | 23.2 | 23.4 | 24.4 | 24.6 | 24.8 | 37% |
| Total | 1 441 | 1 522 | 1 705 | 1 907 | 1 945 | 1 975 | 2 068 | 2 100 | 2 139 | 48% |
| per 100 000 inhabitants | 1 16.3 | 133.6 | 155.8 | 165.5 | 167.6 | 170.9 | 173.6 | 174.9 | 177.1 | 52% |
| Total | 9244 | 10 707 | 12 813 | 13 835 | 14 055 | 14 404 | 14 717 | 14 946 | 15 282 | 65% |
| per 100 000 inhabitants | 51.2 | 56.6 | 61.7 | 66.7 | 67.9 | 69.1 | 69.8 | 70.2 | 70.7 | 38% |
| Total | 4 071 | 4 532 | 5 076 | 5 579 | 5 700 | 5 823 | 5 918 | 5 999 | 6 104 | 50% |

*Notes:*¹ Data includes active physicians who are members of the Austrian Medical Chamber; the whole medical field (private practices, hospitals, etc.); interns (Turnusärzte); excludes physicians working outside of medical practice (in industry, administration, research etc.); specific other categories such as dentists and stomatologists; physicians working abroad and includes physicians who are citizens of a Member State

² Data reporting includes double counts of physicians who have graduated as general practitioners as well as specialists. This concerns about 200 to 280 cases in the most recent years. Therefore, the sum of physicians by categories is higher than the total number of practising physicians.

³ Data includes only general nurses employed in hospitals and excludes assistant nurses employed in hospitals. Change of hospital nurses relates to years 2000 and 2015. *Sources:* Number of practising physicians, general practitioners, specialist physicians and dentists: OECD, 2017g; OECD, 2017h; number of nurses, hospital-based medical technicians, midwives in hospitals and licensed to practice: Statistics Austria, 2017c; Statistics Austria, 2017d; number of pharmacists: ÖAK, 2017a

only increased by 8%. The health and social care sector accounts for around 10% of total employment in Austria and is thus the third largest sector of employment (Statistics Austria, 2017o). In 2016, more than three out of four health and social care professionals were female (Statistics Austria, 2018b). Table 4.5 indicates the number of health professionals by professional group per 100 000 population since 1995.

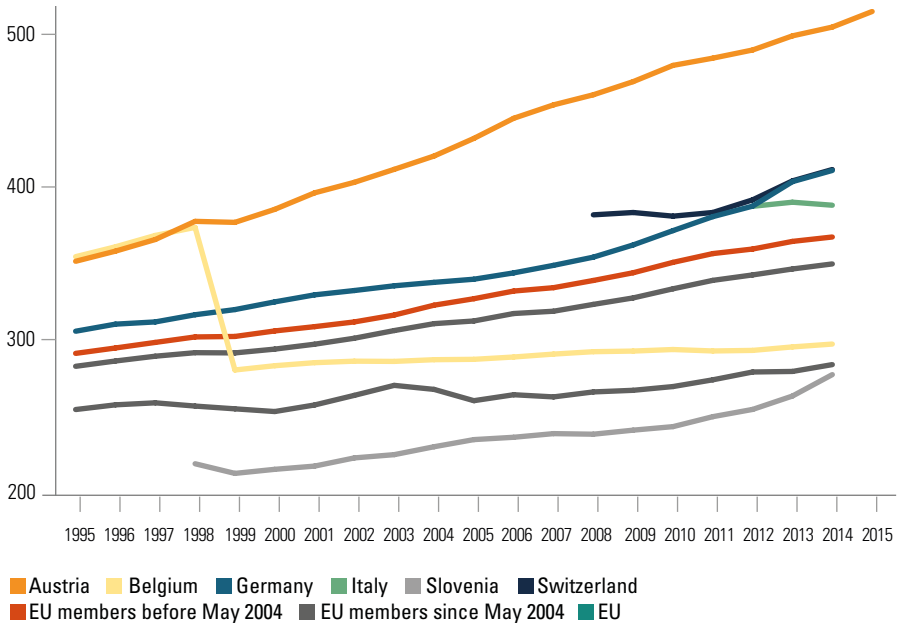
More than 116 000 health professionals were employed in hospitals in 2016, which corresponds to 41% of all health professionals in the health sector. Nurses were the largest professional group, accounting for more than 50% of total hospital staff. Around one fifth were physicians (approx. 24 600), with about half of them being specialists and half being physicians in training (Statistics Austria, 2017b).

To date, the number of health care professionals outside hospitals has not been systematically recorded. However, the implementation of a public health care professions register is currently in preparation. From the second half of 2018, all health and care professionals, including long-term care and nursing professionals, physiotherapists, and speech therapists will be required to register (see section 2.8.3) (Gesundheitsberuferegister-Gesetz, 2016).

PRACTISING PHYSICIANS

Austria has the second highest density of physicians (510 per 100 000 population) in the EU, far above the EU average of 350. Between 1995 and 2015, the number of physicians increased by 45%, faster than in any other OECD country (see Figure 4.5). This increase was particularly pronounced for specialist physicians, namely in neurology and radiology. Between 1995 and 2015, the number of specialists more than doubled while the number of general medical practitioners (GPs) only increased by 25%. As a result, only 15% of all physicians worked as GPs in private practice in 2015 (Table 4.5). It should be noted that national statistics exclude double counts for physicians with more than one graduation (e.g. general practitioner and medical specialization), therefore deviations from internationally reported numbers may occur.

FIGURE 4.5 Number of physicians per 100 000 population in Austria and selected countries, 1995 to 2015 (or latest available year)



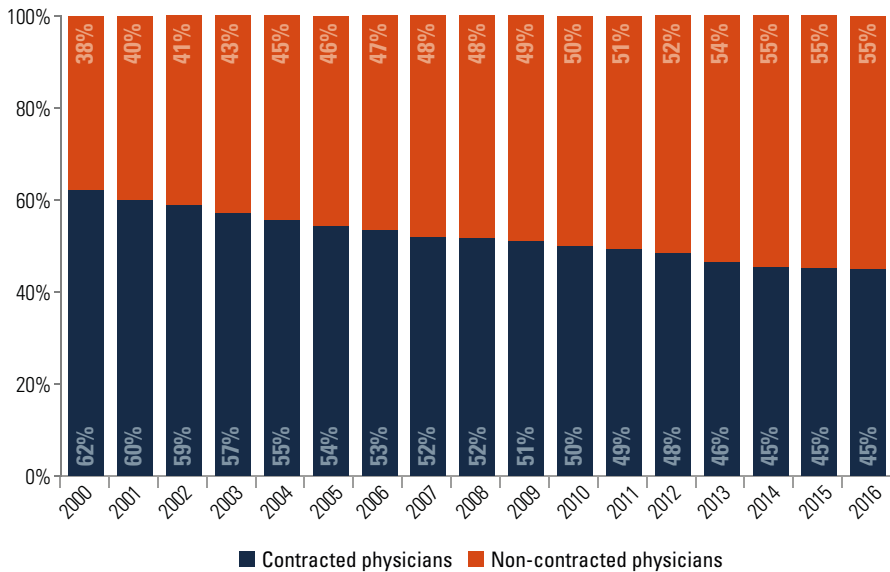
Source: (WHO 2017c)

In 2015, approximately 44 000 physicians were licensed to practice in Austria, with about two thirds of them working as employees (29 800) and more than half (24 000) working as employees in hospitals (Statistics Austria, 2016b). Ambulatory health care services are provided by around 17 000 independently practising physicians, whereof 10 300 practise without any additional employment. They either contract with one or more SHI funds (7 700 or 45% in 2015) and/or practice without SHI contracts (9 400 or 55% in 2015, Figure 4.6). Most non-contracted independent physicians (5 400 or 60% in 2015) are employed in other settings, such as hospitals, and consequently spend less time providing ambulatory care than their contracted colleagues.

The increase in the number of ambulatory care physicians since 2000 was mostly driven by an increase in the number of non-contracted physicians. At the same time the number of contracted physicians has stagnated as shown in relative terms in Figure 4.6. This development will be further exacerbated by future retirements of physicians (see section 7.3.2).

In addition, the distribution of specialist physicians across regions and/or medical specialties is a challenge (see also section 5.3). In particular, there are considerable disparities for specialists. For example, there is a 2.5-fold difference between the two *Länder* with the highest and lowest density of neurologists and psychiatrists with SHI contracts, and the density of radiologists varies threefold across the *Länder* (OECD and European Observatory on Health Systems and Policies, 2017). This maldistribution is further exacerbated by the rising numbers of non-contracted (mostly specialist) physicians who are free to choose their practice location.

FIGURE 4.6 Contracted and non-contracted physicians as a share of the total number of independently practising physicians in ambulatory (extramural) care, 2000–2016¹



Notes: ¹ Time-series break in 2015

Source: GÖG compilation based on ÖÄK, 2017a

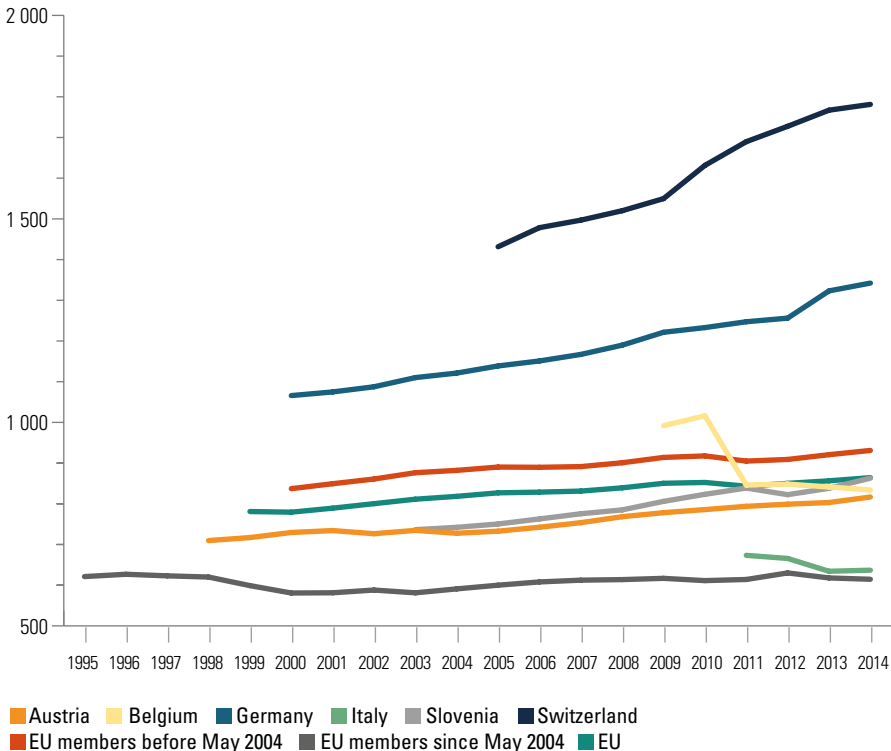
NURSES AND MIDWIVES

In 2015, a total number of 69 500 nurses (general nurses and assistant nurses) were employed in Austrian hospitals. In the period 2006–2015, the number of nurses increased by 16%. However, nurse density in Austria (817 per 100 000 population) remained slightly below the EU average (see Figure 4.7), and

when compared with Switzerland and Germany, nurse density is quite low. This comparatively low number of nurses in Austria explains why the total number of physicians and nurses is in the middle field of western European countries (Figure 4.8).

However, international comparisons are difficult because data on nurses working outside of hospitals remains unavailable. Furthermore, headcounts and full-time equivalents are not used consistently in data reporting across countries. Data on midwives is collected and presented separately by national statistics and refers either to midwives employed in hospitals or total numbers of midwives licensed to practice (see Table 4.5).

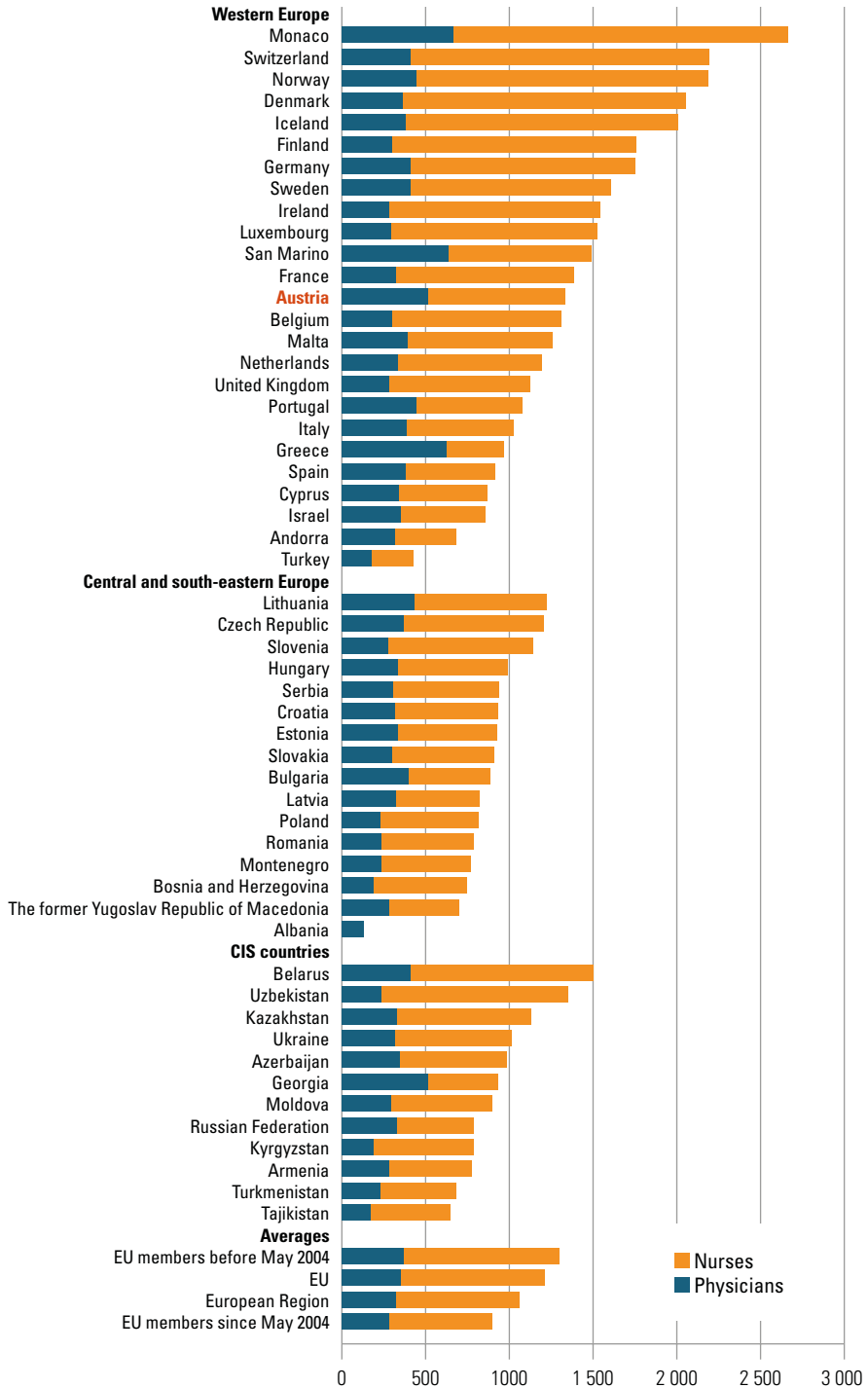
FIGURE 4.7 Number of nurses per 100 000 population in Austria and selected countries, 1995 to 2014 (or latest available year)



Note: Data for Austria includes numbers of general nurses and assistant nurses working in hospitals (in contrast to Table 4.5)

Source: (WHO 2017c)

FIGURE 4.8 Number of physicians and nurses per 100 000 population in the WHO European Region, 2014 (or latest available year)



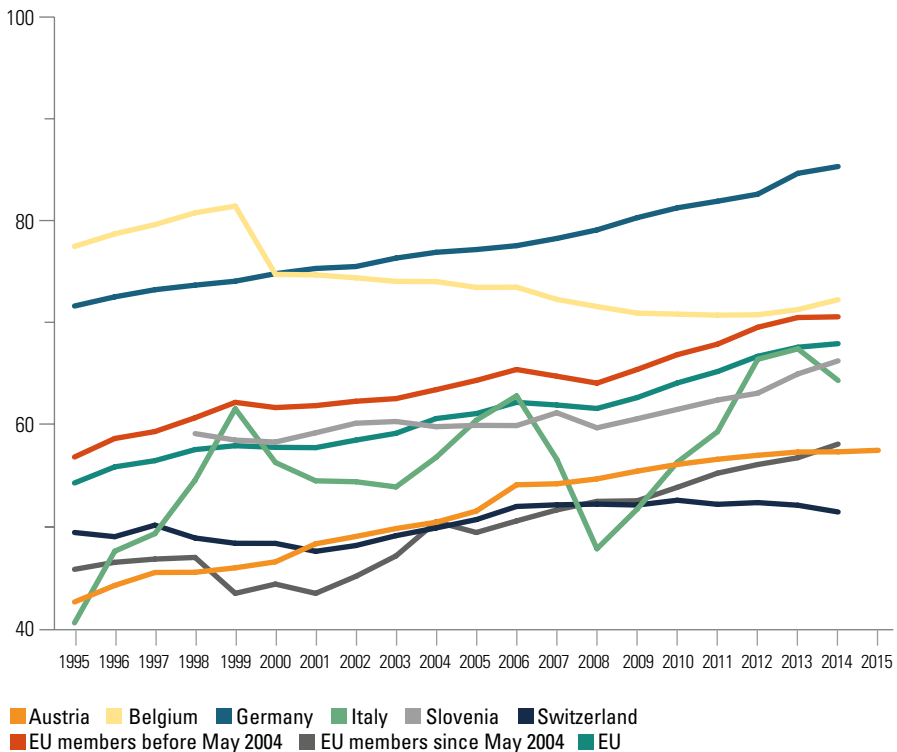
Notes: EU: European Union; CIS: Commonwealth of Independent States

Source: (WHO 2017c)

DENTISTS

In 2015, there were 4 906 dentists working in Austria (Statistics Austria, 2017f; BMGF, 2017j). Since 1995, the number of dentists increased by 77%. However, the dentist-to-population ratio remains below the average in the EU-15 in 2014 (57.3 per 100 000 population compared to 70.5) and significantly below the density of dentists in Germany (85.3) (see Figure 4.9). Of the comparator countries, only Switzerland has a lower ratio of dentists to population (51.4 per 100 000 population). The majority of dentists are self-employed and work in private practices outside hospitals (approximately 80% in 2015), either with or without a contract with a SHI fund. Employed dentists (approximately 20% in 2015) work mostly in hospitals or dental clinics.

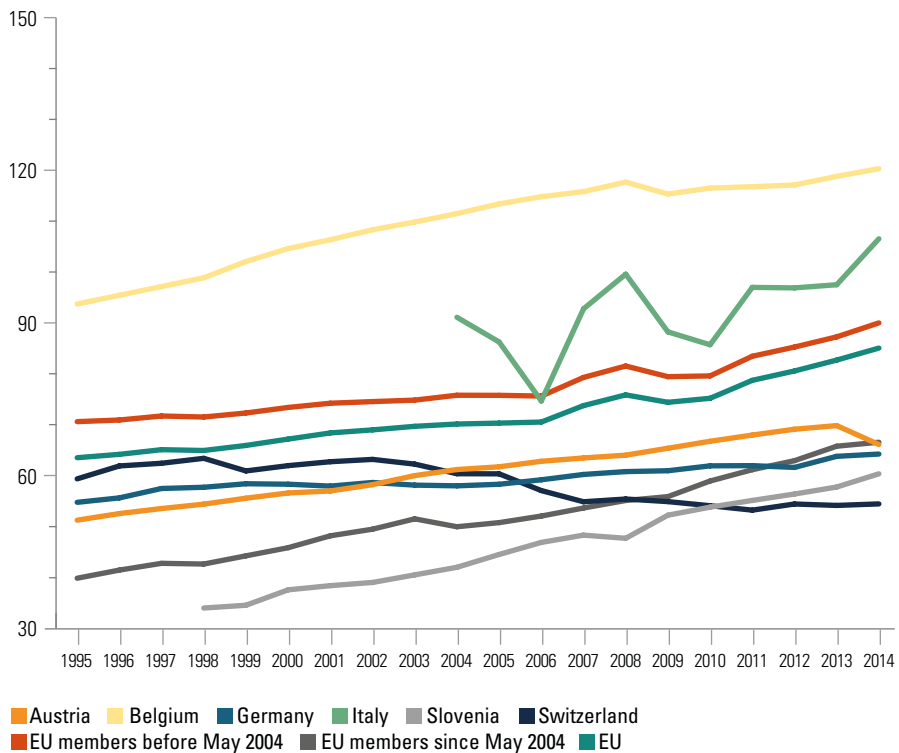
FIGURE 4.9 Number of dentists per 100 000 population in Austria and selected countries, 1995–2015 (or latest available year)



PHARMACISTS

Figure 4.10 shows that the number of pharmacists in Austria increased continuously since 2000, to 66.1 per 100 000 population in 2014, which is, however, considerably below the EU average (85.1). In 2016, 5 822 pharmacists worked in community pharmacies, with one out of four being self-employed. On average, four community pharmacists work together in one pharmacy. The majority of pharmacists are women (79.1%) and about 50% of pharmacies are owned and managed by a female pharmacist. Only 362 pharmacists were employed by the 45 hospital pharmacies in 2015 (Österreichische Apothekerkammer, 2017).

FIGURE 4.10 Number of pharmacists per 100 000 population in Austria and selected countries, 1995 to 2014 (or latest available year)



Source: (WHO 2017c)

■ 4.2.2 Professional mobility of health workers

Austria has long been a net importer of nurses and a net exporter of physicians. The main destination countries for physicians trained in Austria are Germany and Switzerland. Nurses move to Austria mostly from Germany and eastern Europe.

PHYSICIANS

The share of foreign-trained physicians increased from 2.9% in 2006 to 5.1% in 2016. Due to the absence of language barriers, Austria is a main destination country for German physicians. In 2015, a total of 1 084 German physicians worked in Austria (approximately 60% of all foreign-trained doctors). Conversely, Germany is also a major destination for Austrian physicians, mainly due to higher German pay grades. In 2015, in total 1 977 Austrian physicians worked in the neighbouring country. Other sending countries are Hungary (244 physicians), Slovakia (105 physicians) and Czech Republic (77 physicians) (OECD, 2017j; OECD, 2017k).

After the European Court ruling on university admissions in 2005 that declared earlier restrictions illegal for discrimination towards non-national European citizens, the numbers of foreign students admitted to medical faculties in Austria increased. However, this significant intake of international students has put the education and training system under pressure. To stem the flow of foreign students (primarily from Germany), Austria decided in 2006 to reserve 75% of places in medical faculties for students with an Austrian high school diploma. This quota-based system aims to prevent a domestic shortage of doctors as foreign graduates potentially return to their country of origin.

NURSING STAFF

In contrast to physicians, mobility patterns of nursing staff are characterized by a constant net inflow of foreign-born and foreign-trained nurses from neighbouring countries. Germany is the main source of foreign-trained nurses given that German diplomas are recognized and there are no language

barriers. Also, Slovakia plays an important role due to its geographical proximity and the possibility for professionals to commute. Exact numbers of foreign-trained nurses will only be available after the implementation of the registry of health and care professionals.

According to census data, the share of foreign-born nurses in Austria in 2009/2010 was similar to the average across the 22 OECD countries from which data are available (14.5%) (OECD, 2015). The number has remained stable since 2000/2001, except for a short peak following EU enlargement in 2004. The majority of foreign-born nurses comes from EU-15 and European Free Trade Association (EFTA) countries (36%) and new EU Member States (35%). Migration of nurses and carers also plays a major role in the long-term care sector (see section 5.8.1), with about 30% of home-based caregivers being foreign born in 2012/2013 and coming mainly from Romania and Slovakia (OECD, 2015). The full extent of health workforce migration is difficult to capture because data on foreign health professionals, especially for nurses, is not systematically reported and evaluated.

■ 4.2.3 Training of health workers

In Austria, training for all health care professions is regulated by federal law. EU legislation (e.g. the Directive on the Recognition of Professional Qualifications (Directive 2005/36/EC)) has been transposed into national law (BMGF, 2017g). Non-academic training is regulated by the Federal Ministry of Labour, Social Affairs, Health and Consumer Protection (*Bundesministerium für Arbeit, Soziales, Gesundheit und Konsumentenschutz*, BMASGK). Higher education is regulated by the Federal Ministry of Education, Science and Research (*Bundesministerium für Bildung, Wissenschaft und Forschung*) (e.g. by the University Act (UG 2002)), with the BMASGK also establishing guidelines for the training of health care professionals at higher education institutions (BMGF, 2017aj). For health care professions with a legal representative body (e.g. a chamber), part of the responsibility for regulating postgraduate training also lies with the representative bodies (Hofmarcher and Quentin, 2013). Continuing education is compulsory for all health care professionals; however, the required contact hours are not always clearly defined. The following sections give an overview of training and respective requirements for all

health professionals; however, physicians and nurses are covered in more detail due to recent changes.

PHYSICIANS, DENTISTS, PHARMACISTS AND OTHER HEALTH CARE PROFESSIONALS WITH A UNIVERSITY EDUCATION

University education of physicians is regulated in the University Act 2002 and in the Medical Training Regulation 2015 (Ärzteausbildungsordnung, 2015). Medical study programmes (Human medicine and dentistry) are offered at four public universities (Vienna, Graz, Innsbruck and Linz) with a total annual capacity of 1 536 places for 2018/2019 (jku 2018, medizinstudieren 2018) and three private universities in Salzburg (75 places), Krems (50 places in 2018/2019, 70 places from 2019) and Vienna (150 places) (Ärztzeitung, 2016; sfu, 2017; pmu, 2017; FH Krems, 2017). Training of medical doctors lasts for a minimum of 6 years, with the exception of the university in Salzburg that offers a 5-year study programme, equivalent to the 6-year programmes elsewhere. Study programmes of the medical faculties are not subject to detailed regulation (the University Act defines only length of studies and ECTS-points), structure and curricula differ by university.

Admission to the study of medicine was restricted in 2006 with the introduction of a standardized test at public universities (admission examination for medical studies, *EMS*). Private universities defined admission requirements individually. In addition, a quota system was set up in 2006 after Austria experienced a significant inflow of German students in 2005, granting 75% of the study places to students with an Austrian secondary school leaving qualification, 20% to EU-citizens and 5% to non-EU-citizens. The introduction of these contingents resulted in infringement of EU non-discrimination proceedings taken against Austria (starting in 2007), which were terminated in 2017, when the European Commission declared the quota system as justified (Miko, 2017).

Postgraduate medical training is regulated by the BMASGK (Ärzteausbildungsordnung, 2015) as well as by the Austrian Medical Chamber, according to their respective areas of responsibility. In 2015, postgraduate medical education underwent an important structural reform. Postgraduate medical education for GPs and specialist physicians now

starts with a clinical training of a minimum of nine months, during which graduates obtain basic competences in surgical and conservative specialties. Thereafter they undergo training specific to their chosen specialty: those wanting to become GPs enter a 33-months-period (2.75 years) of practical training in a recognized training institution, which they conclude with a final exam. Those wanting to obtain another specialization enter a 63-months-training period (5.25 years) in a recognized training institution (including 15–36 months basic specialty training, followed by 27- to 48-months advanced practical training and a final exam) (BMGF, 2017g; BMGF, 2017aj). Training institutions have to meet quality criteria, which are defined in the *Ärzteausbildungsordnung* and monitored by the Austrian Medical Chamber, which in turn reports to BMASGK.

Continuing medical education with a defined number of contact hours is compulsory for all practising physicians. The Austrian Medical Chamber is responsible for regulating, promoting and supervising the continuing education of their members and for offering special diplomas, certificates and further training courses (e.g. in occupational medicine, public health, emergency medicine and alternative medicine).

The profession of dentistry was only separated from the medical profession in 2005 with the Dentist Act (2005). Before that, dentistry was a medical specialization followed after completion of general medical training. Training of dentists takes place at a medical university, lasts a minimum of 6 years and includes clinical training. Doctors specialized in dental, oral and maxilla-facial surgery are physicians (see training above), undergoing training for this specialty (BMGF, 2017aj).

University studies in pharmacy last nine semesters in Austria. Graduation from university is followed by a practical year in a pharmacy and a final examination which entitles graduates to work as employed pharmacists. Various laws are relevant to training requirements for pharmacists, the most important being the Pharmacy Act (1906, latest amendment in 2017) and the Chamber of Pharmacists Act (2001, latest amendment in 2017) (BMGF, 2017aj). The latter also regulates continuing education of pharmacists.

Other health professionals with a university education include health care psychologists, clinical psychologists, veterinary surgeons and exercise therapists. Different academic degrees can be obtained (Bachelor's, Master's, Dr., PhD), which are mostly followed by education and training in a clinical setting (Aistleithner, 2017).

NURSES

Training and further education of nursing professionals is regulated by the Nursing Act (2007/amendment 2016). Until 2016 nursing professionals included the professions of general nurses and assistant nurses. In July 2016, following a lengthy evaluation period of the existing law (2009–2012), the Austrian Parliament passed an amendment to the Nursing Act (2007). A new profession of assistant nurse with more competences was created, named “second level assistant nurses” (GuKG-Novelle, 2016). The previous profession of assistant nurse was thereafter renamed “first level assistant nurse”. First level assistant nurses require a 1-year full-time training, while second level assistant nurses follow 2-years full-time education in nursing schools.

The reform also adapted the professional profiles to a changing environment of service provision and requirements of the skills mix of health professionals. The overall aims of the reform of the Nursing Act were thus:

- to increase the importance of competences of care workers rather than of activities performed;
- to increase the number of nursing staff;
- to allocate the workload more evenly across the different professional groups; and
- to promote the attractiveness of the nursing profession both for young people graduating from high school as well as those already qualified to remain in their jobs.

Several studies projected that, in the absence of reform of the nursing profession, Austria would face a lack of nurses and assistant nurses in the future (Rappold et al., 2017; Zsifkovits et al., 2013).

Training as a general nurse (as of July 2018 with mandatory registration in order to practice) can be pursued both at universities of applied sciences (since 2010) and nursing schools and requires three years to complete. Currently around 80 nursing schools (usually located at hospitals) and about 10 universities of applied sciences offer nurse training programmes and/or further education (oegkv, 2017a; oegkv, 2017b; oegkv, 2017c). In addition, two private universities offer university training in cooperation with nursing

schools. By 2024, all training of nurses will be gradually transferred to the tertiary educational sector. From 2024 onwards, a qualification in nursing training can only be obtained at universities of applied sciences through a Bachelor's degree (three years, 180 ECTS) which corresponds to international standards.

Completion of continuing professional development for nursing professionals is compulsory and the responsibility of both the professional and his or her employer. Requirements for continuing development courses stipulate 60 contact hours within 5 years for general nurses and 40 hours for first and second level nurse assistants.

OTHER HEALTH CARE PROFESSIONALS

Other health care professionals who undergo training at universities of applied sciences (Bachelor's degree programmes lasting for 3 years) include midwives, higher medical-technical professionals (physiotherapists, biomedical analysts, radiological technologists), dietitians, occupational therapists, speech/logopedic therapists and orthoptists.

Training of psychotherapists is varied and mostly offered by private institutions (associations, universities). Education is divided into two phases, general and specialized training. Regarding specialization, a large range of psychotherapeutic methods are recognized in Austria. Music therapists undergo training (Bachelor's, Master's degree programme/s) at an Austrian (public) university or an Austrian University of Applied Sciences.

Training settings and qualification periods of paramedical assistants vary. Qualified cardio-technicians undergo their training within a defined framework of employment over the course of 18 months. Medical assistants (disinfection assistant, plastering assistant, laboratory assistant, assistant prosector, operating theatre assistant, doctor's surgery assistant, radiology assistant and qualified medical assistant) attend the school for medical assistants or a course of 650–2 500 contact hours.

Masseurs train as medical and/or therapeutic masseurs, Paramedics also have a clearly defined training course ranging from first level- and second level-training (1 690 to 2 490 contact hours) to special emergency qualifications. Dental assistants attend a course within a 3-years training employment framework.

4.2.4 Doctors' career paths

After completing postgraduate medical education as a GP and/or specialist physician, physicians have several career options. Requirements to practice as a physician are regulated in the Physicians' Act (1998/2017). Physicians can either work in medical or in non-medical settings. The latter include positions in consulting, the pharmaceutical industry, the public sector (federal, *Länder*, and municipal health services as well as police or military), SHI funds or schools, etc. Occupational physicians, emergency medicine specialists and doctors working for public health institutions, the police or the military service mostly follow special career paths with different entry requirements and defined (further) training.

Within hospitals, physicians usually work as employees. They start their hospital career as interns (*Turnusärztinnen/-ärzte*), both those in training to become GPs and those to specialize in a certain field. Physicians having trained as GPs may continue to work as assistant physicians in hospitals, usually being assigned to a ward. Specialist physicians may become "senior physicians" (*Oberarzt/Oberärztin*). The way in which this title is awarded is not regulated by law but is usually based on professional qualification and length of service. Sometimes senior physicians head defined wards. A specialist physician employed within a department is subject to the supervision of the department chair (chief physician, *Primärärztin/Primararzt*). The next career step is the position of the first senior physician (*Oberarzt*), who is usually appointed by the chief physician and/or hospital owner. The chief physician is responsible for a department and usually requires certain professional qualifications (in the field of medicine and management) as well as a defined background of professional experience (Mossialos et al., 2006). Chief physicians are able to supplement their income by treating patients with private supplementary insurance ("special fee class") although reimbursement mechanisms vary considerably by medical specialty and hospital.

Specialists outside hospitals usually work on a self-employed basis in private practice with or without SHI contracts. Specialist physicians are, with few exceptions, restricted to practice within their obtained specialization. To contract with a SHI fund as a physician, defined criteria have to be met, which are agreed upon between the relevant regional medical chamber/s and SHI fund/s. Free posts are advertised via the Medical Chamber. Physicians

mostly work in individual or group practices. Criteria for physicians wishing to work in primary health care units are defined by the Austrian Medical Chamber and the Main Association of Austrian Social Security Institutions (*Hauptverband der österreichischen Sozialversicherungsträger*, HVB) in a contractual agreement from 2018 onwards.

■ 4.2.5 *Career paths of other health workers*

Other health professionals may also work in non-clinical settings, including consultancy, research, teaching, public services, social insurance and/or for the pharmaceutical industry. The recent shift of education to universities of applied sciences has increased the relevance of research for a number of health professionals.

Due to tertiarization (shift from primary and secondary education to tertiary education) but also increased demand, new specialist and advanced roles for health professionals are developing (e.g. respiratory physiotherapy, family health nursing, advanced nursing practice or advanced occupational therapy). These are usually, as in other countries, not regulated by law.

Pharmacists can work on an employed or self-employed basis, in community pharmacies or hospital pharmacies. Five years of employment are required to obtain a license to own and manage a community pharmacy (new or existing pharmacy). The professional license is issued by the Austrian Chamber of Pharmacists. Further training and education is overseen by the Chamber of Pharmacists.

Nurses are responsible for the immediate and indirect care of people of all ages, families and population groups in all forms of care settings (primary health care, ambulatory (extramural) specialist care as well as hospital care) (Gesundheits- und Krankenpflegegesetz, 1997; Habimana et al., forthcoming; Weiss, 2014). They can either work on employed or self-employed basis, except for assistant nurses who cannot be self-employed. After graduation, nurses can undergo further training to specialize in a number of fields, such as psychiatric nursing and paediatric nursing, intensive care, hospice and palliative care, anaesthetic care, intensive paediatric care, renal nursing, surgical nursing, hospital hygiene, wound management and stoma care and psychogeriatric nursing (BMGF, 2017aj). Entry-level specializations as paediatric nurse or psychiatric nurse in the third year of general nurse

were abolished. Potential further career options and steps for nurses involve managerial positions (e.g. as head of departments, wards or, on a higher level, as a nursing director within a hospital or a nursing home), teaching and/or lecturing or research. Also public (health) institutions and private health institutions offer career options.

Midwives can exercise their profession in various ways, working either on a self-employed basis and/or on an employed basis in hospitals, institutions of prenatal and postnatal care, for medical doctors or in medical group practices.

Most health professionals working in a therapeutic field (e.g. physiotherapists, psychotherapists, speech therapists) work on an employed and/or a self-employed basis, with sole or shared responsibility. Several of them are entitled to provide services to patients insured with SHI funds. However, patients require a referral (from a physician) for the respective services to be covered by SHI.

Masseurs can work on a self-employed or employed basis (in hospitals, in other establishments under medical management or supervision, in doctors' practices or group practices or for physiotherapists).

Provision of services

Provision of health services in Austria is characterized by relatively unrestricted access to all levels of care including general practitioners (GPs), specialists and hospitals. There is no formal gatekeeping system in place. For ambulatory care, patients can choose between independently practising physicians, group practices, hospital outpatient departments and outpatient clinics. Patients also have choice between social health insurance (SHI) contracted physicians (45%) and those without contract (55%), but they are only reimbursed for 80% of the applicable SHI tariffs for non-contracted care.

In general, health care provision remains strongly focused on hospital care. Austria continues to have the second highest number of hospital discharges per population in the EU (after Bulgaria). The current health reform process aims to shift service provision away from hospital inpatient and outpatient departments towards increased provision in the ambulatory (extramural) sector with a particular focus on the strengthening of primary health care. A promising but small step in this direction is the implementation of 75 multidisciplinary primary health care units as part of the primary health care reform between 2017 and 2021. However, in the past, the fragmentation of responsibility and financing between *Länder* and SHI funds has often complicated coordination and hampered the shifting of service provision towards the ambulatory sector, as this would increase expenditures of SHI funds.

Social and long-term care provision is separate from the health care system in terms of legislation, responsibilities and financing, adding another layer of complexity and further complicating coordination of care provision. Long-term care provision relies heavily on a non-means-tested cash-for-care

allowance paid to approximately 5% of the population. Services are provided in different settings such as informal care by families (42%), formal home care (32%), day care (2%), residential care (19%) and 24-hour home care by privately paid assistants (5%).

Austria has a relatively high density of pharmaceutical provision with community pharmacies, dispensing doctors, hospital pharmacies or pharmaceutical depots. The generics share of prescribed and dispensed pharmaceuticals is relatively low both in volume and value partially because neither INN prescribing (International Nonproprietary Name) nor generic substitution is allowed in Austria. The planned implementation of e-prescription and e-medication applications of the electronic health record ELGA may improve appropriate prescribing and reduce the adverse consequences of polypharmacy in the next years.

Preventive health care in Austria is still strongly focused on medical prevention, although efforts are under way to include social and environmental aspects. Despite free vaccination programmes for children, Austria has comparatively low vaccination rates among 1-year olds (83% for diphtheria, tetanus and pertussis and 76% for measles). Tobacco consumption is a major public health issue and an important risk factor in Austria, which is likely related to comparatively weak smoking policies and the absence of a comprehensive smoking ban in bars and restaurants.

■ 5.1 Public health

There is a Public Health Service (*Öffentlicher Gesundheitsdienst*) in Austria, which assumes tasks in the fields of epidemiology and health reporting, health promotion and prevention, health planning and policy consultation, control of communicable diseases, medical crisis management and environmental medicine and hygiene (BMASGK, 2018d). However, public health policy and practice remains highly fragmented, involving many actors from different sectors (education, social services, environment etc.) (BMGF, 2017u), including several federal ministries, SHI funds, the Federal Health Agency (BGA), the Supreme Health Board (*Oberster Sanitätsrat*), the Austrian Agency for Health and Food Safety (*Österreichische Agentur für Gesundheit und Ernährungssicherheit GmbH*, AGES) as well as various bodies of the Austrian health reforms 2013 and 2017 (see sections 2.3.1 and 2.3.4).

Also, universities, research institutes, NGOs, and expert associations are involved in public health functions and public health research. These include the Austrian Public Health Association (*Österreichische Gesellschaft für Public Health*), the Ludwig Boltzmann Institute for Health Technology Assessment, the Institute for Health Promotion and Prevention and the Austrian Public Health Institute (GÖG), which hosts the Austrian Health Promotion Fund (*Fonds Gesundes Österreich*, FGÖ).

The 10 Austrian Health Targets adopted in 2012 highlight the importance of public health in Austria. These targets provide the guiding framework for public health policy until 2032, following a Health in All Policies (HiAP) approach and aiming to contribute to increased healthy life expectancy (BMGF, 2017s).

Public expenditure on preventive care (according to the system of health accounts) amounted to €555 million in 2015 which corresponds to 1.6% of current health care expenditure (OECD, 2017c).

■ 5.1.1 *Communicable disease control functions*

Surveillance and control of communicable diseases is mainly under responsibility of BMASGK, which monitors infectious diseases via the electronic epidemiological reporting system (*Epidemiologisches Meldesystem*, EMS). According to the Law on Epidemics all health providers and actors are required to report defined communicable diseases to this system (*Epidemiegesetz*, 1950). This facilitates the temporal and spatial monitoring of diseases and planning of preventive measures (BMGF, 2017r). Foodborne diseases are jointly monitored by health, food and veterinary authorities. To combat outbreaks of foodborne disease a specialized centre was established within the Austrian Agency for Health and Food Safety (AGES) in 2012 (Hofmarcher and Quentin, 2013).

Antimicrobial resistance has been monitored since 2005 including also nationwide surveillance of antibiotic use by non-hospital providers and usage statistics of hospitals (Hofmarcher and Quentin, 2013). Monitoring results are published annually in the Austrian Report on Antimicrobial Resistance. The National Action Plan on Antimicrobial Resistance (*Nationaler Aktionsplan zur Antibiotikaresistenz*, NAP-AMR) published in 2017 aims to improve the use of antibiotics (BMGF, 2017y). In particular, it strives to limit the

development and spread of antimicrobial resistance, to sustain the effectiveness of antibiotics and to promote the quality of antimicrobial therapies. Revision of the NAP-AMR will start in 2018 based on the new EU One Health Action Plan against Antimicrobial Resistance published in July 2017 (European Commission, 2017b).

■ 5.1.2 Health promotion and education

In 2012, both the Federal Health Commission (*Bundesgesundheitskommission*) and the Council of Ministers agreed upon 10 Austrian Health Targets (*Gesundheitsziele*) that provide the framework for steering the health system until 2032. Nine of the 10 Health Targets aim at health promotion and related topics such as health literacy, and healthy behaviour (see section 6.1.1).

The Health Promotion Strategy that was agreed during the last health reform period 2013–2016 builds upon the framework for coordinated health promotion actions in Austria until 2022. Its priority areas are early childhood intervention; healthy nurseries, kindergartens and healthy schools; healthy living environments and lifestyles of adolescents and people of working age; health literacy of adolescents, people of working age and elderly people and social participation and psychosocial health of the elderly. The strategy also sets rules and conditions for the allocation of resources (BMGF, 2016d).

Two national action plans have been developed to support healthy lifestyles. The first is National Action Plan on Nutrition (*Nationaler Aktionsplan Ernährung*) originally adopted in 2011 and updated in 2012 and 2013, which aims to reduce over-, under- and malnutrition and to reverse the trend of rising overweight and obesity rates by 2020. The second is the National Action Plan on Physical Activity (*Nationaler Aktionsplan Bewegung*) adopted in 2013, which sets targets for specific population groups and gives recommendations on possible measures to increase physical activity (BMLVS, 2013; BMG, 2013b).

The Austrian Health Promotion Fund (FGÖ) is an important player in Austria for health promotion and prevention. In 2015, it financed in total 92 health promotion projects. The highest amount was spent on implementing innovative health promotion and primary prevention pilot projects in different settings (€4.8 million), followed by occupational health promotion projects (€1.6 million) (FGÖ, 2015a; FGÖ, 2015b). Depending on the grant

level, either internal or external (€20 000–€60 000) or external (>€60 000) project evaluation is obligatory.

Health promotion is also anchored in a number of strategies (National Strategy on Child and Youth Health, National Strategy on Dementia, National Strategy on Diabetes) as well as the national platform on health literacy (ÖPGK, 2017b) and the National Centre for Early Childhood Intervention (NZFH, 2017a) (see section 2.6.4).

■ 5.1.3 Preventive services

Preventive activities in Austria still focus on medical prevention, involving vaccination, preventive health check-ups, screening for different population groups (e.g. pregnant women and infants or adolescents), and addiction prevention including non-smoking programmes. However, prevention is increasingly taking into account different social contexts with varying social and environmental risk factors.

In close cooperation with the national vaccination committee (*Nationales Impfgremium*) the BMASGK issues an annual vaccination plan (BMGF, 2017o). Included vaccinations are free of charge up to the age of 15 years and cover diphtheria, haemophilus influenza type B, hepatitis B, human papillomavirus (HPV), measles, mumps, rubella, meningococci of groups A, C, W135 and Y (MEC-4), pertussis, pneumococci, poliomyelitis, rotavirus and tetanus (BMGF, 2017n). Two thirds of programme costs are covered by the federal government, the remainder by the *Länder* and SHI funds in equal shares. In contrast to other countries, none of the recommended vaccinations are mandatory.

Austria has relatively low vaccination rates, which might, however, be partially explained by lack of systematic documentation and reporting of vaccinations. In 2014, 83% of children aged 1 year were immunized against diphtheria, tetanus, pertussis, 76% against measles and 83% against hepatitis B. In 2014, Austria abolished the age limit for the free measles vaccination and launched a public awareness campaign with the aim to increase uptake. However, in 2015, Austria reported 300 measles cases, corresponding to 35.3 cases per million inhabitants – the second highest, with only Croatia among EU countries reporting a higher rate (ECDC, 2016).

Austria recommends influenza vaccination for infants, different at-risk

populations, and for adults aged 50 and over. Vaccination is typically subsidized but is generally not provided free of charge. In 2014, only 20.3% of the population aged 65 years and over were immunized compared to more than 70% in the Netherlands and the United Kingdom – both countries that provide influenza vaccination free of charge for the elderly (OECD/EU, 2016).

Against an overall declining trend of smoking in many European countries, the number of Austrian adults who smoke has remained stable since 2000 and was above the EU-28 average (see section 1.4) (Eurostat, 2017i). One potential reason for the high smoking prevalence is the comparatively weak smoking policy in Austria in the last decades. The 2008 amendment of the Tobacco Act (1995) prohibited smoking in restaurants and bars but still allowed smoking in separate rooms or when the surface area of an establishment was under a certain threshold. Smoking policy is a topic of public debate, especially as the new federal government revoked plans for a total smoking ban in restaurants and bars after their election in 2017.

Encouragingly, smoking rates among adolescents and young adults have decreased since the year 2000. The recently launched tobacco prevention initiative YOLO (“You only live once”, www.yolo.at/) of the BMASGK, FGÖ, the Main Association of Austrian Social Security Institutions (*Hauptverband der österreichischen Sozialversicherungsträger*, HVB) and the Austrian Association for Addiction Prevention (*Österreichische ARGE Suchtvorbeugung*) specifically targets young people aged 10–14 years (FGÖ, 2017a). In 2016, Austria published its first Addiction Prevention Strategy, which covers legal and illegal drugs, including alcohol and tobacco, and provides guidance for addiction policy in the forthcoming years (BMG, 2015b).

In each of the nine *Länder* there are Institutes for Addiction Prevention that aim to combat and prevent addictions to legal substances (alcohol, tobacco or pharmaceuticals) as well as illegal substances and behavioural addictions. These institutes conduct sensitization and information campaigns as well as prevention projects (Suchtvorbeugung, 2017).

A range of population-wide screening programmes are available. Once a year, preventive screenings are offered to all inhabitants above 18 years regardless of their insurance status. For persons without health insurance coverage, the federal government reimburses SHI funds for incurred costs. Screenings comprise anamnesis and early detection of noncommunicable diseases (coronary heart disease, metabolic diseases and cancer) as well as stool tests for occult blood to screen for colon cancer. The screening also covers

prevention of addictive disorders (i.e. alcohol, tobacco, and pharmaceuticals), parodontal disorders and age-related diseases. Patients aged 50 years and above are recommended a colonoscopy every 10 years and patients older than 65 years a regular check of hearing and sight. Gynaecologic examination (including screening for cervical cancer) and examinations for specific age risk groups (e.g. biennial breast cancer screening for women aged between 45 and 69 years) also belong to preventive population-wide screenings.

Since 2014, a new nationwide breast cancer screening programme that meets international and European quality standards targets women aged 45–69 years. They receive written invitations for participation every two years. Women aged 40–44 years and 70 years and older can voluntarily sign up for the screening.

In 2015, the SHI funds spent €122 million for preventive examinations (HVB, 2017b). In the period 2005–2015, the number of preventive screenings provided to people aged 19 years and above per 1 000 inhabitants increased by 19.7%. However, this increase was particularly pronounced only in a few *Länder* (Vienna, Burgenland, Carinthia, Tyrol and Lower Austria) while screening rates remained stable or even decreased in the others (see Table 5.1).

TABLE 5.1 Number of preventive check-ups and screenings per 1 000 inhabitants (above 19 years), 2005 and 2015

| | 2005 | | | 2015 | | | CHANGE (2005–2015) |
|---------------|--------------|-------|-------|--------------|-------|-------|-----------------------|
| | TOTAL | MEN | WOMEN | TOTAL | MEN | WOMEN | |
| Austria | 138.0 | 115.9 | 158.3 | 165.1 | 130.5 | 197.6 | 19.7% |
| Burgenland | 179.5 | 170.0 | 188.4 | 274.4 | 189.3 | 354.5 | 52.9% |
| Carinthia | 217.0 | 151.8 | 276.4 | 255.5 | 205.0 | 302.2 | 17.7% |
| Lower-Austria | 61.6 | 65.0 | 58.5 | 62.2 | 63.6 | 60.8 | 0.9% |
| Upper-Austria | 118.9 | 118.3 | 119.5 | 133.0 | 132.9 | 133.1 | 11.9% |
| Salzburg | 135.8 | 123.8 | 146.6 | 144.1 | 134.6 | 152.8 | 6.1% |
| Styria | 135.1 | 125.6 | 143.9 | 138.2 | 127.4 | 148.5 | 2.3% |
| Tyrol | 270.5 | 167.7 | 365.8 | 304.6 | 188.8 | 414.1 | 12.6% |
| Vorarlberg | 301.5 | 157.7 | 438.0 | 263.3 | 143.3 | 377.8 | -12.7% |
| Vienna | 106.7 | 100.9 | 111.8 | 186.2 | 131.3 | 236.0 | 74.4% |

Source: HVB, 2006b; HVB, 2017b

Apprentices aged 15–18 years are eligible for the adolescent screening programme (*Jugendlichenuntersuchung*) that aims for early detection of diseases, as well as awareness raising and support for a healthy lifestyle (HVB, 2017b). Additionally, annual school medical examinations are anchored in the School Education Act (*Schulunterrichtsgesetz*, 1986).

The mother-child-pass is a screening programme for pregnant women and infants up to the age of 5. Pregnant women are entitled to five screening cycles, three ultrasound exams, one HIV test, an oral glucose tolerance test and support by consultant midwives, while infants have to undergo five medical screenings during the first 14 months. The full parental leave allowance is only granted if all of the 10 screenings during pregnancy and the first 14 months have been taken up. Six further screenings for infants are foreseen between the age of 22–62 months. Since its introduction in 1974, nearly all pregnant women participated in the programme and perinatal mortality was reduced substantially (Bancher-Todesca, 2014). Since then, the programme was adapted and extended. Currently, its further development is anchored in the federal government's working programme 2017–2022, which focuses on its evaluation and improvement and its enhanced use in early childhood support (BMGF, 2017m).

Finally, opportunistic screening for prostate cancer is also available in Austria but it is not part of the annual preventive examination (BMGF, 2016c).

■ 5.1.4 *Occupational health services*

The Employee Protection Act regulates responsibilities in the field of occupational health and safety at the state and enterprise level. The Act also defines the nomination of dedicated health and safety representatives and the requirements of medical personnel responsible for safety measures within organizations, which may vary by company size. The Accident Insurance Fund also plays an important role in the field of occupational health as it has the statutory mandate for prevention of accidents, occupational diseases (according to the General Social Insurance Act (ASVG)) and safety (ASchG 1994).

Occupational health promotion and prevention is very fragmented in Austria mainly relying on voluntary small-scale projects. The Austrian

Network for Occupational Health Promotion (BGF Netzwerk, 2017) advises companies on adequate occupational health programmes. The Austrian Health Promotion Fund (FGÖ) provides financial project support either as a share of a project's process costs (for large companies) or as a lump sum of €2 000 or €3 000 (for SMEs) (Fonds Gesundes Österreich, 2017). After a stepwise introduction, the federal government's secondary prevention programme "Fit2work" was implemented nationwide in 2013. Fit2work is a low-threshold programme which aims to preserve the employability of employed and unemployed people and particularly targets people with vulnerable employability (Hausegger et al., 2015).

■ 5.2 Patient pathways

The Austrian health care system is characterized by nearly unrestricted access for patients to contracted providers at all levels of care. GPs are the first entry point to the health system, however, they generally do not have a formal gatekeeping function and specialists can be consulted directly. Gatekeeping only exists for certain medical specialists (e.g. radiologists). However, SHI funds allow patients to change physicians of the same specialty (GP or specialist) during an invoicing period (usually one quarter) only in exceptional circumstances. Patients are also free to consult hospital outpatient departments directly. Hospital outpatient departments play a particularly important role during GPs' and ambulatory specialists' out-of-office hours. Box 5.1 presents a typical pathway of patients in curative, non-emergency care within the Austrian health care system.

■ 5.3 Primary health care and specialized ambulatory care

The majority of primary health care and specialized ambulatory (extramural) care is provided by independently practising physicians. In 2015, about 6 600 GPs worked in independent private practices and about 62% of them had a contract with one or more SHI funds (ÖÄK, 2017a). Treatment by specialist physicians is available in independent private practices, outpatient clinics and hospital outpatient departments. With 6.8 annual physician

visits per adult in 2015, the number of ambulatory contacts is relatively high compared to other western European countries (see Figure 5.1). Since 2001, physicians are allowed to form group practices, legally defined as general partnerships (*Offene Gesellschaft*). Since 2010, physicians may also collaborate under the legal form of limited liability companies (*GmbH*) (Reisner, 2010). Nevertheless, physicians are required to become co-owners as partnerships and limited liability companies are not allowed to employ doctors. Hence, only a few GPs have taken up this possibility to form group practices and usually run single practices so far. The recent Primary Health Care Act (*Primärversorgungsgesetz*, 2017) does not, however, provide the option to employ physicians in independent practices. Group practices are only allowed to employ a limited number of other health care professionals. There are currently no data available at national level on the number of employed health professionals in GP practices. A study from Styria reveals that almost all practices (97.5%) employ a practice assistant but only 25.8% employ a nurse (Korsatko, 2014).

BOX 5.1 A typical patient pathway for hip replacement in Austria

Mr Need, a 70-year-old married man with SHI coverage and no fee exemption or additional private insurance, has been having pains in his hip for some time. He can hardly walk anymore and fears that he will need a hip replacement.

- Mr Need consults his GP and tells him about his symptoms. The doctor prescribes painkillers and refers him to the specialist orthopaedic physician who is contracted with his SHI fund (see section 5.4). His electronic health insurance card (e-card) registers his visit and the GPs services are paid for directly by the SHI fund (see section 4.1.4).
- After visiting his GP, Mr Need goes to the pharmacy closest to him and presents his prescription issued by the GP in order to receive his medication, for which he has to pay a prescription fee (see section 3.4.1, Table 3.6).
- The orthopaedic physician examines Mr Need and refers him for an X-ray scan to an ambulatory radiology institute. She gives him a list of independent radiology institutes, which are contracted with his SHI fund, to choose from. Mr. Need calls all institutes and selects the institute with the shortest waiting time. His visits at the orthopaedic physician and radiology institute are recorded on his e-card and their services are paid for directly by the SHI fund.

- Mr Need returns to the orthopaedic physician who can access and consult his results through ELGA and advises him to have surgery. As Mr. Need does not have specific requests for the hospital, the orthopaedic physician recommends the closest hospital that performs hip surgeries. Again, the e-card is used for registration and later payment of the service.
- Back at home, Mr. Need additionally accesses information on the Austrian Health Portal and the Hospitals Directory (see section 2.9.1) and decides to seek a second opinion before he decides where to go for surgery.
- Mr Need therefore consults a non-contracted (elective) orthopaedic physician, who recommends surgery as well. Mr. Need pays for the service of the elective physician directly. He sends this bill to his SHI fund requesting reimbursement and receives 80% of the tariff for contracted orthopaedic physicians (see section 3.3.4). The non-contracted physician recommends a different hospital with a good reputation for hip surgery, and informs him that he has to expect waiting times of around three months. For Mr Need, waiting three months is too long and he decides to take his referral and test results to the hospital the contracted orthopaedic physician recommended.
- As the hospital is close to Mr. Need's residence and his medical condition does not justify ambulance services, he uses public transportation to go there.
- After surgery, rehabilitation begins while he is still in hospital. A request for medical inpatient rehabilitation is prepared (see section 5.7). The hospital is reimbursed by the State Health Fund (LGF) according to a fixed number of DRG points for the treatment "hip replacement surgery".
- Before being discharged, Mr Need receives a discharge letter with relevant recommendations and information for further treatment, which he hands over to his GP. Additionally, information on his treatment and exams are recorded in ELGA. The GP helps him to complete the request for rehabilitation and tells him that he needs to hand this in to his SHI fund. The hospital sends Mr Need a bill, charging a daily rate that partially covers accommodation (Table 3.8).
- Mr Need is admitted to a hospital specializing in rehabilitative care. The SHI fund pays for his stay, and the clinic produces a per diem based bill (see Table 3.8). Crutches and other medical aids required by Mr Need are provided by the SHI fund.
- After rehabilitation, Mr Need realizes that he can no longer run his household without support. The GP recommends Mr Need to apply for long-term care allowance (see sections 5.8).

Source: adapted by GÖG in 2017; Hofmarcher and Quentin 2013; Mossialos et al., 2006

The current health reform 2017–2021 aims to strengthen primary health care. With the Primary Health Care Act (Primärversorgungsgesetz, 2017) passed in June 2017 the grounds were provided for the implementation of 75 primary health care units by 2021 (see section 6.1.4). They are designed as multi-professional units with at least a core team of GPs, qualified nurses and practice assistants. The units can also include paediatricians and other health and social professionals (physiotherapists or social workers) and can either be set up as centres with one location or as networks with several practice locations (BMG, 2014a). The primary health care units aim to reduce the numbers of patient visits and self-referrals to hospital outpatient departments where the costs of treatment are expected to be higher. They also aim to guide patients in finding the most appropriate ambulatory care provider. The first pilot units already exist in several *Länder*.

Ambulatory care is also provided by outpatient clinics (*Ambulatorien*) that are legally defined as hospitals and are represented by the Chamber of Commerce. They are run as separate health care institutions by SHI funds or private individuals and are able to hire doctors. In 2017, there were approximately 900 outpatient clinics (BMASGK, 2018c). The last comprehensive survey on outpatient clinics dates back to 2008. Out of the 755 outpatient clinics about one third were active in the field of physical medicine, 14% provided medical imaging and about 13% provided dental care. A total number of 2 603 physicians worked in outpatient clinics in 2008, 50% as specialists, 33% as GPs and 17% as dentists (BMGFJ, 2008).

In addition, outpatient departments of acute hospitals also provide outpatient care and play an important role in provision of specialist ambulatory care. According to data from public hospitals, about 20 million patient contacts were documented in outpatient departments of acute care hospitals in 2016 (BMGF, 2017ac). While these departments were not designed to provide primary health care, they are legally obliged to provide emergency care, as well as testing and treatment methods that are not sufficiently covered by networks of independently practising physicians. An increasing number of patients rely on their after-hour services in the evenings and weekends. However, since the introduction of the LKF system (1997) the lump sum for hospitals was never adjusted and does not reflect the increased level of their outpatient activities. As a result, many hospitals have been reluctant to invest in their outpatient services capacity, which in turn has led to increased waiting times. A newly developed DRG-based payment system (*LKF ambulant*) for

hospital outpatient services will be gradually introduced in hospitals in all *Länder* until January 2019 (see section 3.7.1). Further, the extended opening hours of the new primary health care units might reduce patient numbers in hospital outpatient and emergency departments. However, the new concept remains a matter of political debate and subject to criticism, in particular by the Austrian Medical Chamber.

In Austria, a commitment towards more integrated care is anchored in the Agreement under Article 15a of the Federal Constitutional Law and in the health care reforms of 2013 and 2017 with the aim to reduce the fragmentation in health service delivery. However, the operational implementation of integrated care is so far limited to small-scale projects. In 2007, the first disease management programme “Therapie aktiv” (<https://diabetes.therapie-aktiv.at/>) for patients with type II diabetes has been implemented. The second Federal Target-Based Governance Agreement aims to improve integrated care through new integrated care programmes for common chronic diseases and enhanced cooperation across care settings. Also, the implementation of new primary health care units is expected to improve coordination of care (see section 6.1.4).

While the density of active physicians is very high compared to other countries (see section 4.2.1), geographical distribution and accessibility of independently practising physicians vary widely. The density of GPs is relatively high in some cities such as the centre of Vienna (13.3 per 1 000 population), Krems (5.2), St. Pölten (4.2), Linz (4.3) and Klagenfurt (3.7) but comparatively low in some rural districts which have as few as 0.2 GPs per 1 000 inhabitants. The geographical spread between different districts is even more pronounced for specialists (e.g. ranging from 4 to 0.04 paediatricians and 2 to 0.04 eye specialists per 1 000 inhabitants) (ÖÄK, 2015). These regional inequalities might become even more problematic as rural areas face problems in filling open vacancies and more than half of active physicians will retire within 15 years from now (Kringos et al., 2015).

Non-contracted physicians in independent practice are increasingly important in the provision of primary health care and specialized ambulatory care. Between 2000 and 2016, the share of non-contracted physicians of all independently practising physicians in ambulatory care increased from 38% to 55% while the absolute number of contracted ambulatory care physicians is stagnating. Today, non-contracted physicians largely account for the relatively high density of physicians in Austria (see section 4.2.1 and

Figure 4.6). Overall, non-contracted physicians spend much less of their time providing ambulatory care compared with their contracted colleagues, as most work only in private practice in addition to salaried work in other settings, such as hospitals. Yet recent years have witnessed an increase in the activity of non-contracted physicians providing ambulatory care along with their steadily rising numbers.

While contracted physicians can be accessed free of charge, private payments apply for consultations with non-contracted physicians. Patients can claim reimbursement for these payments for up to 80% of the fee that would have been paid for a contracted physician performing the same service. The difference has to be paid out-of-pocket or may be covered by VHI (see section 3.4). Payments for non-contracted care account for a large share of out-of-pocket spending. In 2015, OOP payments for ambulatory treatment amounted to €2.35 billion, corresponding to 37% of total OOP payments (see Table 3.7).

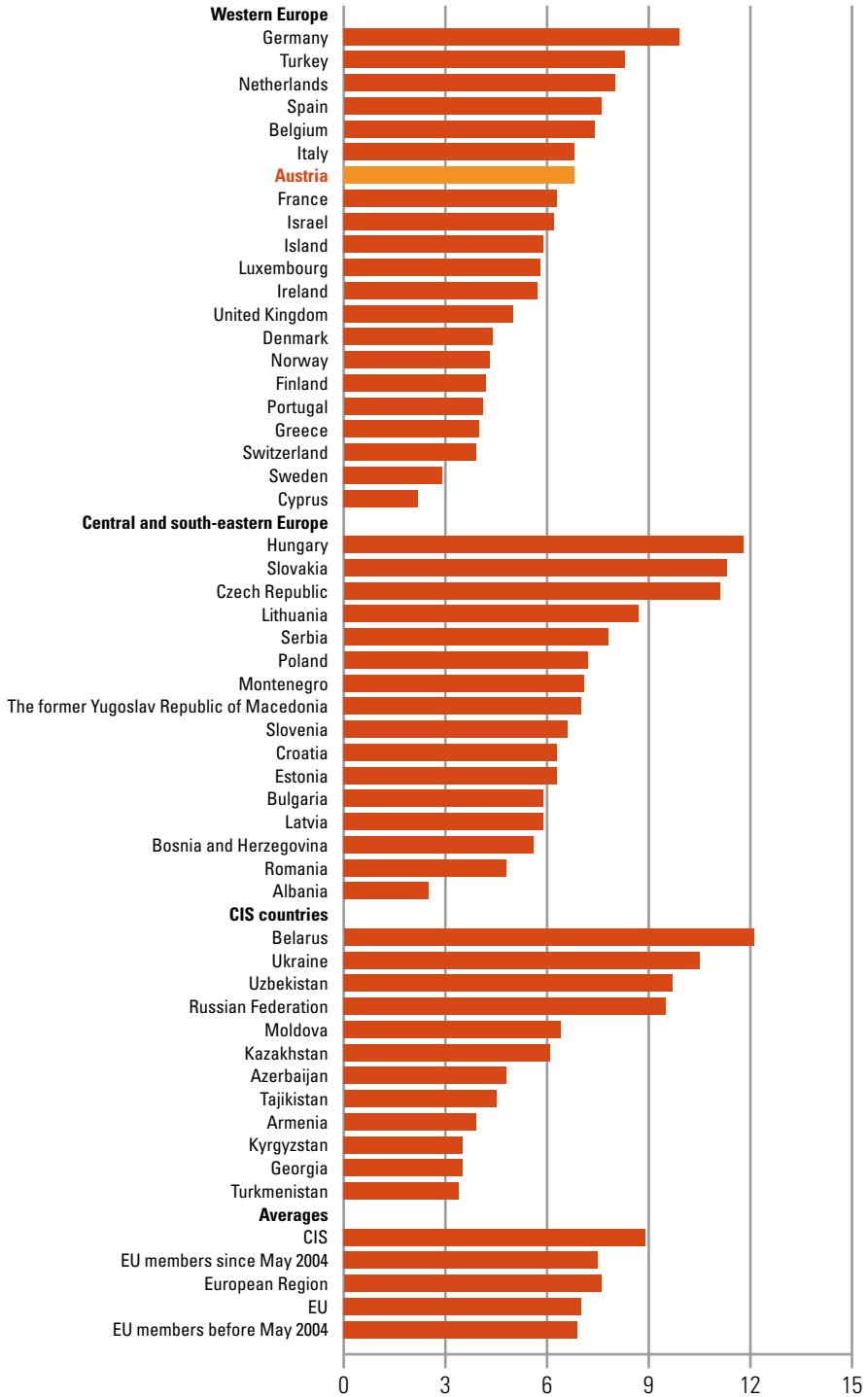
■ 5.4 Inpatient care

Hospital care (including inpatient and outpatient care) is mostly under the responsibility of the *Länder*. This is in contrast to care provided by independently practising GPs and specialists, which is under the responsibility of the SHI funds.

Inpatient care is largely publicly organized or relies on private non-profit-making institutions. About 56.7% of hospitals are private non-for-profit with nearly half of them (42.9% or 117 hospitals) operating under public law (BMGF, 2017i; BMGF, 2017ac). Hospitals subject to public law are obliged to admit and provide services to all patients (Hofmarcher and Quentin, 2013).

In 2016, there were 273 hospitals in Austria providing a total of 64 838 beds. About 59% (162) were acute care hospitals (BMGF, 2017i). *Länder* and *Länder*-owned companies are the largest owners of hospitals, managing 55.9% of hospital beds and 73.1% of all beds in hospitals with public law status. Religious associations (holy orders and faith groups) managed about 15.9% of hospital beds (see Table 5.2) (BMGF, 2017h). Overall, hospitals and hospital beds are equally distributed across regions and thus ensure good accessibility to inpatient care.

FIGURE 5.1 Ambulatory contacts per person in the WHO European Region, 2015 or latest available year



Note: Ambulatory contacts with physicians include examinations and consultations with physicians or in the absence of a physician a nurse, either at their surgery or at the patient's home. Ambulatory contacts with physicians also include treatment at day clinics and treatment in ambulances. EU: European Union; CIS: Commonwealth of Independent States

Source: WHO, 2017b.

TABLE 5.2 Hospitals and available beds by ownership, 2016

| OWNERS | NUMBER OF HOSPITALS | | % OF TOTAL HOSPITALS | |
|---|---------------------|------------|----------------------|--------------|
| | FINANCED VIA LGF | TOTAL | FINANCED VIA LGF | TOTAL |
| Federal government | 0 | 7 | 0.0 | 2.6 |
| <i>Länder, Länder-owned companies</i> | 72 | 89 | 61.5 | 32.6 |
| Municipal organizations, municipalities and their companies | 9 | 10 | 7.7 | 3.7 |
| Social health insurance (SHI) funds | 1 | 9 | 0.9 | 3.3 |
| Accident and pension insurance funds | 0 | 33 | 0.0 | 12.1 |
| Religious associations | 29 | 36 | 24.8 | 13.2 |
| Charities and foundations | 1 | 5 | 0.9 | 1.8 |
| Private companies and individuals | 5 | 84 | 4.3 | 30.8 |
| TOTAL | 117 | 273 | 100.0 | 100.0 |

Source: BMGF, 2017h'

| OWNERS | NUMBER OF AVAILABLE BEDS | | % OF TOTAL BEDS | |
|---|--------------------------|---------------|------------------|--------------|
| | FINANCED VIA LGF | TOTAL | FINANCED VIA LGF | TOTAL |
| Federal government | 0 | 322 | 0.0 | 0.5 |
| <i>Länder, Länder-owned companies</i> | 33 075 | 36 230 | 73.1 | 55.9 |
| Municipal organizations, municipalities and their companies | 2 317 | 2 339 | 5.1 | 3.6 |
| Social health insurance (SHI) funds | 404 | 1 397 | 0.9 | 2.2 |
| Accident and pension insurance funds | 0 | 4 622 | 0.0 | 7.1 |
| Religious associations | 8 583 | 10 318 | 19.0 | 15.9 |
| Charities and foundations | 220 | 678 | 0.5 | 1.0 |
| Private companies and individuals | 625 | 8 932 | 1.4 | 13.8 |
| TOTAL | 45 224 | 64 838 | 100.0 | 100.0 |

Source: BMGF, 2017h

Austria's health system has a strong focus on inpatient care. In fact, Austria has the second highest number of hospital discharges per population in the EU (after Bulgaria, see section 4.1.2). The Federal Target-Based Governance Agreements 2013–2016 and 2017–2021 and the Primary Health Care Act (2017) aimed at strengthening ambulatory care and primary health care and reducing activity in the inpatient sector (hospital discharges and average length of stay) by shifting services from the inpatient to ambulatory and day care settings (see sections 6.1.3 and 6.1.4). During the first reform period 2013–2016, hospital discharges in funds hospitals were reduced by 8% (from 232 in 2012 to 213 hospitalizations in 2016 per 1 000 inhabitants) and hospital bed days by 10% (from 1.225 in 2012 to 1.104 in 2016 per 1 000 population) (Bachner et al., 2017). The second Federal Target-Based Governance Agreement aims to achieve a further annual countrywide reduction of hospital discharges on average at least 2% until 2021 (ZS-G, 2017) (see also Table 6.3).

However, the main obstacle impeding a shift of health service provision towards the ambulatory sector is the fragmented financing responsibilities between *Länder* and the SHI funds (see section 2.3). The conflict concerns the question of who would pay for the resulting increase of service use in the ambulatory sector from a shift away from inpatient care (Hofmarcher and Quentin, 2013). In the current financing system, a shift towards ambulatory care would imply higher costs for SHI funds.

Improvements in quality and quality measurement continue to be a core theme of the current reform. Selected results of the Austrian Inpatient Quality Indicators (A-IQI) are available to the public through the platform www.kliniksuche.at that also aims to support patients finding and choosing the hospital that best meets their individual needs and preferences. The Austrian Structural Plan for Healthcare includes quality criteria such as a minimum number of procedures conducted for certain services per hospital (e.g. in the case of pancreatic surgeries) that were implemented. However, due to lack of monitoring it remains unclear whether these quality criteria lead to centralization of certain procedures in fewer hospitals.

■ 5.4.1 Day care

Day care in Austria refers to treatments in acute care hospitals that do not require an overnight stay (past midnight). Services provided and financed

as day care in inpatient settings (also referred to as 0-day admissions) are usually procedures listed in a catalogue of defined day care procedures. The most common day care services are eye treatments, oncological therapies and chemotherapy (BMGF, 2017ac).

The current health reforms explicitly emphasize a shift towards day care. The second Federal Target-Based Governance Agreement specifies as an indicator the proportion of a selected set of procedures performed in day care settings, and monitors this proportion (ZS-G, 2017) (Table 6.3). The proportion of procedures carried out as day cases varies widely across *Länder*; for instance, only 3.5% of all varicocele operations in Burgenland were carried out as day cases in inpatient settings, compared to 43.5% in Carinthia in 2016 (BMGF, 2017c). In general, Austria still performs below international benchmarks in providing day care despite improvements since 2000 (see section 7.5.1).

■ 5.5 Emergency care

Emergency care covers public pre-hospital emergency medical services, including ambulance services, and hospital emergency care. All public acute care hospitals (117) have outpatient departments, which are legally obliged to offer emergency treatment. Organization and financing of emergency care are under the legal responsibility of the *Länder*, which each define emergency care services differently. State legislation usually obliges municipalities to fund and contract emergency care services, but some *Länder* co-finance these services. Most municipalities contract private non-profit organizations such as the Austrian Red Cross, the Samaritans Association, St. John's Association and the Maltese Hospital Service for emergency care services delivery. The city of Vienna provides emergency services via an own branch of the city's administration (Viennese Municipal Department 70). The Austrian Red Cross is the largest provider with a network of more than 2 000 emergency ambulances and emergency physician vehicles and is able to reach every patient in Austria within 15 minutes with an ambulance and within 20 minutes with an emergency physician vehicle (Austrian Red Cross, 2017a).

Contrary to many other countries, emergency services and patient transport is often jointly organized using the same vehicles and personnel. Emergency care is mainly performed by paramedics and critical care

paramedics, that are joined by emergency physicians when necessary (BMGF, 2017c). In Austria, voluntary work plays an important role in emergency care. In 2016, about 39 000 volunteers worked in the emergency and patient transport sector for the Austrian Red Cross (Austrian Red Cross, 2017a). Men who opt out of military service and provide civil service are also frequently engaged in emergency services. Training for paramedics is relatively short by international standards (100 hours of theoretical and 160 hours of practical training) (Reisinger, 2012). Thereafter paramedics are responsible prior and during transport for non-high-level emergency patients as long as no emergency physician is required. Increased training requirements for paramedics and professionalization might seem necessary but would most likely reduce participation of volunteers.

BOX 5.2 Typical Emergency Patient Pathway

- In medical emergencies, the patient or a bystander calls 144 to reach the nearest emergency coordination centre. Emergency hotlines are also linked to the European emergency number (112), the police (133) or fire brigade (122).
- The emergency coordination centre assesses the level of care required and usually sends an ambulance with paramedic staff and/or an emergency physician vehicle. If necessary, other rescue services might also be alerted and first aid instructions given over the phone.
- Paramedics and, if alerted, the emergency physician provide emergency care on site as well as during the emergency transport. In most cases the patient will be taken to a hospital emergency department where decisions are taken on further care requirements.

■ 5.6. Pharmaceutical care

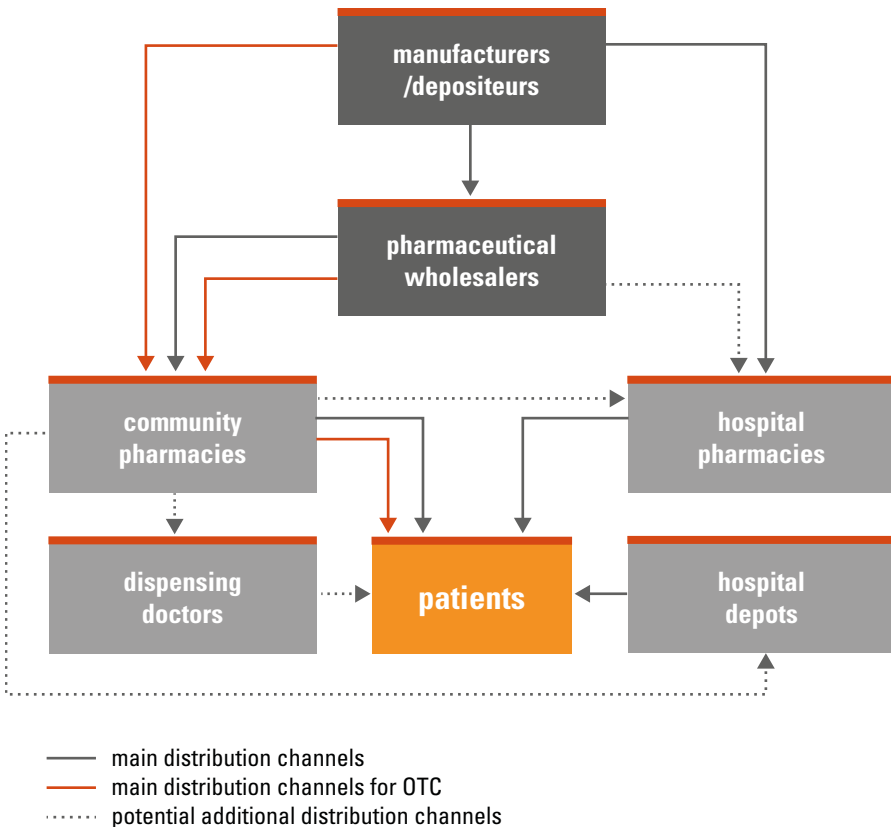
In Austria there are approximately 220 pharmaceutical companies employing around 18 000 people (Zimmermann and Rainer, 2018). In 2015, pharmaceutical production in Austria reached a value of €2 864 million with exports exceeding imports by about 6% (Pharmig, 2017). Direct delivery from pharmaceutical manufacturers to pharmacies is allowed but plays an insignificant role. In general, medicines are distributed via wholesalers who usually deliver

to pharmacies about three times per day. There are about 35 wholesalers in Austria with six of them covering 95% of the market (Zimmermann and Rainer, 2018) (Figure 5.2).

Medicines for use in the ambulatory (extramural) care sector were dispensed by 1 380 community pharmacies in 2016 (Österreichische Apothekerkammer, 2017). With around 841 dispensing doctors, Austria ensures a relatively high density in medication distribution, particularly in remote areas (Zimmermann and Rainer, 2018).

In the inpatient sector, medicines are usually dispensed by the 38 hospital pharmacies (Pharmazeutische Gehaltskasse, 2017) or via “pharmaceutical depots” which are supplied by hospital or community pharmacies (Hofmarcher and Quentin, 2013). In 2017, approximately 14% of all hospitals had their own pharmacy, but the number of hospital pharmacies continuously decreases, given the trend of out-sourcing and centralizing of hospital pharmacies (Zimmermann and Rainer, 2018).

FIGURE 5.2 Distribution channels for pharmaceuticals



■ 5.6.1 *Access to medicines*

All insured individuals have free access to medicines included in the positive list of SHI reimbursable pharmaceuticals for use in the ambulatory (extramural) care sector, if prescribed by a physician. Physicians are allowed to freely prescribe medications listed in the green section of the positive list, which includes also OTC medicines. Other medications in the list (in the yellow section) require permission by a physician of the SHI fund or documentation to allow retrospective justification (Hofmarcher and Quentin, 2013) (see section 2.8.4).

In 2018, the prescription fee per prescribed item amounted to €6.00 (HVB, 2018b) with all costs exceeding this amount covered by the SHI funds. For medicines with a gross reimbursement price below the prescription fee individuals pay the full price. No cost-sharing applies to pharmaceuticals provided in inpatient settings.

Certain population groups (e.g. individuals with infectious disease, pensioners with a compensatory allowance) and individuals with a household income below certain thresholds are exempt from prescription fees (BMGF, 2017ar) (see section 3.4.1). The proportion of insured individuals exempt from prescription fees varies significantly across SHI funds. In 2016, the share of insured exempted from prescription fees was lowest in the regional SHI fund of Burgenland (2%) and highest in the regional SHI fund of Vienna (28%) (Wilbacher, 2018). Since 2008 a prescription fee cap of 2% of an individual's annual net income has been in place, in particular to alleviate the burden of prescription costs for chronically ill people (BMGF, 2017ar). However, patients have to pay a minimum of €222 (for 37 prescriptions) before the 2% threshold applies. Despite these exemptions, prescription fees accounted for 6.4% of total out-of-pocket expenditures in Austria in 2015 (see Table 3.7). Patients admitted for inpatient treatment are not required to pay any additional costs for prescriptions.

■ 5.6.2 *Pharmaceutical consumption*

Medication consumption is measured in packets. In 2015, in total 240.7 million packages of prescribed and non-prescribed medicines were sold, of which about 90% (217.9 million packages) were dispensed in the

ambulatory sector (Pharmig, 2017). About 49% of the packages sold (119 million) were financed by SHI funds, corresponding to 14 packages per insured person.

Total expenditure on prescribed and non-prescribed medicines in the ambulatory sector accounted for €4 300 million in 2015, i.e. 12.4% of total current health expenditure and €504 per person, with 69.7% financed from public sources. While per capita spending on pharmaceuticals is above the OECD average, the share of pharmaceutical expenditure of current health expenditure is below the OECD-30 average of 15.7% (see section 7.2.1) (OECD, 2017d).

The generics share of pharmaceutical sales is relatively low with 32.5% of the ambulatory reimbursement market in volume and 14.3% in value in 2015, partially owed to the fact that neither INN (International Nonproprietary Name) prescribing nor generic substitution is allowed. In the inpatient sector availability of data on prices and the generics share is limited, posing challenges for efforts towards more cost-efficiency (Panteli D et al., 2016; Zimmermann and Rainer, 2018). On a more positive note, the frequency of prescribed antibiotics in Austria (13.9 defined daily doses per 1 000 population per day) is below the OECD-30 average (21 defined daily doses per day) in 2016 (OECD, 2017b).

■ 5.6.3 *Current developments*

Core elements of the current health reforms are likely to have important impacts on pharmaceutical care through the planned applications of the electronic health record ELGA (e-prescriptions, electronic medication record (e-medication) and electronic vaccination record (e-Impfpass)). The e-medication application will provide an overview of all medications prescribed by different providers, contributing to appropriate prescribing and reducing adverse consequences of polypharmacy. Polypharmacy prevalence and potentially inappropriate medications are also indicators of the Federal Target Contract being monitored as part of the reform process 2017–2021.

An explicit objective of the Federal Target-Based Governance Agreement is also to improve efficiency of public pharmaceutical spending through joint procurement of medicines across the ambulatory and inpatient sectors and

Länder (ZS-G, 2017). In 2016, Austria joined the Beneluxa Cooperation on Pharmaceutical Policy with Belgium, the Netherlands and Luxembourg (BeNeLuxA). The cooperation aims to contribute to sustainable access to medicines and their appropriate use through goals such as increasing efficiency in the assessment, pricing and reimbursement of medicines. It covers four domains of collaboration among participating countries, which are horizon scanning, health technology assessments, sharing information and potentially joint price negotiations for selected products.

■ 5.7 Rehabilitation/intermediate care

Rehabilitation care is regulated by the ASVG and is considered to be part of medical care. Generally, a distinction needs to be made between (1) medical rehabilitation care and restoration, (2) secondary and tertiary prevention (e.g. spa treatments, sanatoria), and (3) non-medical interventions, i.e. professional and social support. For a patient to be eligible for medical rehabilitation care, three conditions must apply: there must be an assessed need; he or she must be suitable, i.e. motivated and able to participate in rehabilitation care; and the specific objective of rehabilitation care must be achievable within a specific time frame (Hofmarcher and Quentin, 2013). Generally, medical rehabilitation care is a statutory entitlement for insured persons, while secondary and tertiary prevention are provided voluntarily by SHI funds.

Rehabilitative care is provided either in inpatient or ambulatory settings. For medical rehabilitation, inpatient care takes place in specialized rehabilitation centres (defined as specialized hospitals) while ambulatory rehabilitation care takes place in hospital outpatient departments and outpatient clinics (Gyimesi et al., 2016; Hofmarcher and Quentin, 2013).

The goals and tasks of rehabilitation care vary by the different social insurance funds responsible for covering costs. Measures funded by SHI aim at restoring or maintaining good health. Measures covered by the pension insurance fund are meant to avoid early retirement and long-term care needs (Hofmarcher and Quentin, 2013). Measures funded or provided by the Accident Insurance Fund focus on restoration of health after workplace accidents and work-related illnesses (AUVA, 2016b). In this context, the Accident Insurance Fund provides medical, professional (e.g. training, labour

market reintegration) and social support (e.g. financial or in-kind subsidies for adaptations needed in the home or acquisition of assistive devices) (AUVA, 2016b). In addition, different means-tested cash benefits from the Accident Insurance Fund may be granted to the insured person and/or to his or her family members after a work accident (AUVA, 2017b).

Patients usually apply for medical rehabilitation themselves, with a medical need statement from a GP or specialist (Hofmarcher and Quentin, 2013). If an application is rejected after medical evaluation at the respective SHI fund, the insured may re-apply twice within five years, unless the person's health status worsens. Applications for patients in need of post-acute care after hospital discharge are submitted by a medical specialist in the treating hospital. In general, means-tested daily co-payments are required for a maximum of 28 days per inpatient rehabilitation stay (see section 3.4.1).

Applications for medical rehabilitation or prevention from pensioners and for invalidity pension from active persons are evaluated by the pension insurance fund, which also collaborates with the public training and counselling programme Fit2work (see section 5.1.4). In case of positive evaluation, the pension insurance fund provides a cash benefit for the duration of the granted rehabilitation.

Several recent studies have highlighted the need for the extension of places in certain areas of inpatient rehabilitation, ambulatory phase II rehabilitation and rehabilitation for children. An assessment carried out by the GÖG in 2016 estimated a need for 11 174 beds for adults for inpatient rehabilitation care by 2020, and a need for 1 235 places for adults in ambulatory phase II rehabilitation care (Gyimesi et al., 2016). Another study conducted in 2012 projected a need also for children and adolescent rehabilitation of around 340 beds by 2020 (Reiter et al., 2012).

Several measures have been taken in recent years to avoid early exit from the labour market of (older) persons in poor health. Since 2014, people whose application were rejected but who were assessed as being temporarily unable to work (i.e. for a minimum of six months) receive a rehabilitation allowance while participating in medical rehabilitation care targeted at labour market reintegration. Since July 2017, participants of the Fit2work programme that re-enter the labour market in part-time after a sick leave of minimum 6 weeks are entitled to a cash benefit for reintegration and compensation for reduced income.

■ 5.8 Long-term care

The Austrian social and long-term care (LTC) system remains separated from the health care system in terms of legislation, competencies and financing. Whereas organization and financing of the health care sector follow the logic of the SHI, provision of social care and long-term care services are under the responsibility of the state governments, resulting in substantial differences regarding coverage, structural quality regulations and quality assurance mechanisms across Austria (Leichsenring et al., 2014; Riedel and Kraus, 2010). At federal level, since 2018, LTC is in the competency of the BMASGK. It is a novelty in the Austrian context that health and LTC are under the responsibility of the same ministry.

With the introduction of the care allowance (*Pflegegeld*) in 1993, the Austrian LTC system took a shift towards more universalist principles yet maintaining its strong reliance on family carers (Österle and Bauer, 2012). It also increased the purchasing power of care recipients, triggering a rise in the availability of home and residential care services in all nine *Länder*, albeit to different degrees (Leichsenring 2017; Österle and Bauer, 2012). In addition, it also facilitated the emergence of the “24-hour care sector”.

The Austrian care allowance scheme provides non-means-tested cash benefits to people in need of care residing in Austria. As opposed to other countries, recipients in Austria are free to choose how to spend the allowance (Riedel and Kraus 2010; Ungerson, 2004). By law, the allowance is defined as a “flat-rate contribution to compensate for expenditures incurred due to care needs”, meant to facilitate help and support and enable independent living for people with LTC needs (Bundespflegegeldgesetz, 1993).

In 2016, around 5% of the Austrian population (455 354 people) and approximately 18% of the population aged 60 years and older received the care allowance (Table 5.3). Two thirds of recipients were women. The allowance is paid in seven different levels according to the number of estimated hours of care needed by recipients. It ranges from a monthly amount of €157.30 to €1 688.90 and is not subject to taxation. Since introduction, the care allowance has been updated only four times, which led to a 25% decrease in purchasing power between 1993 and 2016, referring to the consumer price index (own calculations based on Rainer and Theurl (2015)).

Entitlement to the cash benefit is given when permanent care or support are expected to be necessary for at least six months and more

than 65 hours per month (BMASK, 2016). Care needs are assessed in an extensive examination by care professionals (e.g. nurses) that feeds into a medical doctor's expert opinion (Riedel and Kraus, 2010). Eligibility criteria have been tightened in the past few years in favour of those with more severe care needs (Leichsenring 2017; Rodrigues, 2010). Availability of informal care is not part of the official assessment procedure. More than half of care allowance recipients were classified in the two lowest care levels in 2016.

TABLE 5.3 Overview of seven care levels of the long-term care allowance and recipients by age and gender (December 2016)

| CARE LEVEL | NEED FOR CARE IN HOURS PER MONTH | MONTHLY ALLOWANCE IN € (NON-TAXABLE) | LTC ALLOWANCE RECIPIENTS | | PROPORTION OF WOMEN (%) | PROPORTION OF RECIPIENTS > 80 YEARS (%) |
|--------------|--|--------------------------------------|--------------------------|------------------------|-------------------------|---|
| | | | TOTAL | IN % OF ALL RECIPIENTS | | |
| 1 | ≤95 | 157.30 | 118 662 | 26.1 | 65.5 | 38.6 |
| 2 | ≤120 | 290.00 | 110 859 | 24.3 | 63.2 | 46.8 |
| 3 | ≤160 | 451.80 | 81 591 | 17.9 | 63.3 | 53.2 |
| 4 | >160 | 677.60 | 65 495 | 14.4 | 63.2 | 58.1 |
| 5 | >180 in case of extraordinary care needs | 920.30 | 49 496 | 10.9 | 67.1 | 63.4 |
| 6 | > 180 hours (in case of care needs which need to be either dealt with immediately as they occur, on a regular basis during day and night, or which require the constant presence of a carer during day and night due to risk of injury for the person in need of care or others) | 1.285.20 | 19 894 | 4.4 | 60.0 | 49.0 |
| 7 | > 180 hours (in case the person in need of care cannot move his or her extremities intentionally, or a similarly severe situation exists) | 1.688.90 | 9 357 | 2.1 | 63.6 | 39.9 |
| TOTAL | | | 455 354 | 100 | 64.1 | 49.2 |

Note: LTC, long-term care

Source: own calculations based on BMASK, 2017a

■ 5.8.1 *Structure of service provision*

LTC is provided in different settings, although the boundaries are blurred: (1) informal care provided by families (mostly wives and daughters); (2) formal home care (including day care); (3) residential care; and (4) 24-hour home care by privately paid assistants (see also Hofmarcher and Quentin (2013)). In 2015, according to estimates by the nongovernmental organization *Hilfswerk*, about one third of all care allowance recipients (32%) used formal home care services. About one in five people in need of care used residential care services (19%), while about 5% of beneficiaries used 24-hour care and 2% received day care, possibly also in combination with formal home care. About four in 10 people in need of care (42%) received no care services but relied on informal care from relatives (BMASGK, 2016; BMASK 2012; Nagel, 2015). Formal home care is predominantly provided by private non-profit organizations. There are 850 residential care facilities, which are managed by public (50%), private non-profit (25%) and for-profit (25%) provider organizations (Leichsenring, 2017).

Coverage and utilization rates for both formal home and residential care vary largely across Austria. In 2015, the share of users of formal (mobile) home care services among people aged 60 years and older ranged from 5.7% in Salzburg to 9.9% in Vorarlberg and the share of residential care users from 2.8% (Burgenland, Vorarlberg) to 4.7% (Carinthia). The intensity of care differs even more strongly across regions. In 2015, the average number of hours of home care provided in a year and per recipient ranged from 57 hours in Styria to 197 hours in Vienna. The provision of long-term care services in day care settings has gained importance in recent years. Between 2011 and 2016, the number of people in day care nearly doubled (48%) (own calculations based on Statistics Austria (2018c)).

Twenty-four-hour care is provided by (live-in) privately paid assistants that primarily come from Austria's neighbouring eastern European countries (Schmidt et al., 2015; Winkelmann et al., 2015). In 2007, a reform introduced a subsidy and regulated qualifications to facilitate the hiring of 24-hour carers in private households. Since then, people with at least care level 3 may apply for the public subsidy (up to €550 in the case of self-employed assistants) that aims to partially cover the costs for 24-hour care. To qualify for the subsidy three conditions must be met: (1) the monthly net income must not exceed €2 500 (excluding cash transfers, such as the care allowance; higher income

limits apply if dependants are supported); (2) there must be a separate room for accommodation of the 24-hour carer; and (3) the 24-hour carer needs to give evidence of at least six months of practical training or prove having completed a basic training of 200 hours or prove having a delegation from a doctor or a nurse (BMASGK, 2018g).

The majority of 24-hour care assistants are self-employed, usually alternating with another carer on biweekly shifts. In 2017, about 11% of care allowance recipients with at least care level 3 (25 300 households) received a public subsidy for 24-hour care, an increase of about 6% since 2016 (23 800). The subsidy is administered by the *Sozialministeriumservice* (previously Federal Social Welfare Office). In 2017, the total numbers of active and registered 24-hour care assistants was about 62 600 (WKÖ, 2018).

■ 5.8.2 *Quality assurance*

A number of federal quality assurance mechanisms exist for LTC providers (BMASK, 2017a). About a third of the 850 residential facilities have a certified quality management system in place, and 5% (46) were certified according to the National Quality Certificate (*Nationales Qualitätszertifikat*) in 2018 (BMASGK, 2018b). The certification tool was introduced in 2008 and indicators have a focus on process and outcome quality, particularly quality of life of residents and satisfaction of care professionals (Leichsenring et al., 2014; Rodrigues et al., 2014).

Quality of care received at home is assessed through an annual (voluntary) survey carried out by qualified staff in the homes of all recipients of the care allowance and, in a separate survey, among users of the 24-hour care public subsidy. The quality assurance mechanism is meant to assess formal home care and 24-hour care and to support informal caregivers via counselling and provision of information about respite care and other support services (SVB, 2016). There is also the opportunity to request a home visit. The number of quality visits among care recipients living at home has increased in recent years, but decreased slightly between 2016 (19 515) and 2017 (19 201). Among recipients of the 24-hour care subsidy, about 26% received a quality visit (6 635) (BMASK, 2017a).

■ 5.8.3 Overview of recent reforms

Recent reforms in LTC are the creation of the LTC fund (*Pflegefonds*) (Long-term Care Fund Act; Pflegefondsgesetz, 2011), changes in the financing of residential care and the launch of the dementia strategy:

- As of 2018 assets of care recipients may no longer be used to finance residential care, with the *Länder* being in charge of compensating for the loss in (out-of-pocket) revenues. The *Länder* may still access a care recipient's income and social benefits to finance residential care.
- The LTC fund, created for the period 2011 to 2021, may mark a path towards more earmarked financing in the area of LTC by explicitly dedicating a part of the public federal budget to LTC-related expenditure (Trukeschitz and Schneider, 2012) (see section 3.6.2). It aims at increasing harmonization of LTC service provision across all *Länder*. Also, planning of social care provision is monitored more closely by the federal government, e.g. by collecting administrative data on LTC provision from the *Länder* since 2011 (BMASGK, 2018a).
- In 2015 the Austrian dementia strategy was launched. The dementia strategy defines seven objectives including the promotion of participation and autonomy, access to timely information for carers and people living with dementia, training of formal and informal caregivers and improving cooperation and coordination between different types of care services, as well as between the health care and the social care sector (Juraszovich et al., 2015).

Fragmentation of competencies and financing between health and social care and between the federal and the *Länder* level have long hampered better integration of health and LTC services (Rodrigues, 2010). This fragmentation also results in limited cooperation between acute care hospitals and providers of follow-up treatments and LTC services (including rehabilitation services, home and residential care), mostly relying on informal arrangements or personal relationships (Leichsenring 2017; Rodrigues, 2010). It remains to be seen whether the recent integration of health and LTC under the responsibility of one single federal ministry will create synergies in this regard.

■ 5.9 Services for informal carers

In 2010, around eight out of 10 people in need of LTC relied – either exclusively or in addition to formal home care – on help from informal carers, i.e. family members, friends or neighbours (BMASK 2012; Riedel and Kraus 2010; Schneider et al., 2006). Overall, this amounts to at least 40 000 informal caregivers in Austria (Leichsenring 2017; Pochobradsky et al., 2005). The vast majority of informal caregivers are women, particularly among the largest group of caregivers, aged 50 to 64 years (Colombo et al., 2011; Rodrigues et al., 2012). About a third of informal caregivers are engaged in paid work (Pochobradsky et al., 2005; SVB, 2016).

Informal care giving and the organization of formal home care services constitute a considerable burden on informal carers. In 2016, four out of 10 informal caregivers participating in the survey of care allowance recipients living at home reported to feel a psychological burden because of caregiving responsibilities (SVB, 2016). A 2008 study in Vienna indicated that particularly women with multiple caring obligations and women providing intensive hours of care may require support with regard to reconciliation of care and employment (Trukeschitz et al., 2013).

In the past few decades, a number of policies have been introduced to support informal caregivers. A subsidy to finance respite care amounting to a maximum of €1 200 to €2 200 for a maximum of 28 days per year is granted to the main caregiver of a person with at least care level 3. A higher subsidy is granted to people caring for children or people with dementia with at least care level 1 (BMASK, 2017b). Unemployed informal caregivers of a person with at least care level 3 have the right to access pension and social insurance, for which contributions are fully borne by the state. There is also the possibility of receiving financial support to compensate for the costs of (short-term) respite care in case of illness or annual leave of the informal caregiver.

In order to support working caregivers, three public care leave schemes currently exist. The short-term care leave (*Pflegefreistellung*), introduced in 1976, grants entitlement for a paid leave of one week (per worker per year) to care for a sick or dependent relative. It is extended to two weeks if the person cared for is under the age of 12 years. The family hospice leave (*Familienhospizkarenz*), introduced in 2002, allows employees to accompany a terminally ill relative for a period of six months, or in the case of severely ill children for a period of nine months (per carer per case). Finally, informal

carers can take a LTC leave (*Pflegekarenz*), introduced in 2014, which lasts for three months (per carer per case). It can be renewed once if the health status of the care recipient worsens substantially. Both family hospice leave and LTC leave may be taken either as part-time or full-time leave from work and are paid at 55% of the net income. For families receiving the allowance with a net income under a threshold of €850 (2017) a means-tested supplement is provided (BMFJ, 2018). By international comparison, take up of these two care leave models is relatively high (Schmidt et al., 2016). In 2016, 2 616 people used the care leave allowance, of which 190 received a means-tested supplement (BMASK, 2017a). In addition, informal caregivers in employment (including those caring for a co-residing disabled child) are able to access complementary pension insurance, for which contributions are paid by the state.

■ 5.10 Palliative care

Provision and coverage of hospice and palliative care has grown considerably since 2001, when the Austrian Parliament decided to initiate the structured development of hospice and palliative care in the country. This has enabled more patients to die at home. Between 1988 and 2015, the share of people dying outside hospitals increased from 39.7% to 51.0%. However, coverage of hospice and palliative care is still unequally distributed across the *Länder* (Peltari et al., 2017). For example, the share of patients with a brain tumour dying at home ranges from 10.8% in Vienna to 31.8% in Styria (Baumgartner, 2017).

In 2005, the Austrian hospice and palliative care system was introduced as a nationwide, graded hospice and palliative care model for adults (Centeno et al., 2013). It distinguishes between hospice and palliative care provided in general care settings (hospitals, residential care homes, mobile care services or ambulatory care) and specialized hospice and palliative care (Table 5.4). Palliative support services are provided by volunteer-based hospice teams, which visit patients and their families in all settings, by palliative consultancy services, which consist of specialized palliative care teams within hospitals, and by mobile palliative care teams, which provide palliative care at patients' homes or in residential long-term care institutions. Furthermore, there are dedicated palliative care departments within general hospitals, stand-alone inpatient hospices, and day care hospices.

TABLE 5.4 Graded model of hospice and palliative care in Austria

| | HOSPICE AND PALLIATIVE CARE | | |
|--------------------------------|---|-----------------------------|--|
| | GENERAL CARE SETTINGS | SPECIALISED CARE SETTINGS | |
| | Providers | Palliative support measures | Specialised facilities |
| Acute care | hospitals | Hospice teams | Palliative consultancy services Palliative departments in hospitals |
| Long-term care | residential care homes, old-age homes | | Inpatient hospices |
| Family care / Home care | independent physicians, mobile services, therapists | | Daycare hospices |

Source: adapted from Hofmarcher and Quentin (2013).

In 2016, hospice teams provided support to 2 202 patients and their families, 1 800 patients stayed in, palliative departments in hospitals, and mobile palliative care teams reached 2 142 patients and their families (Pelttari et al., 2017).

Volunteers are key in the provision of hospice and palliative care in Austria. In 2016, 3 528 volunteers were active across Austria (86% women) after having completed a palliative care training of 80 hours theory and 40 hours practice. They are organized mostly in one of the 162 hospice teams and are coordinated and continuously supervised by professionals (Pelttari and Pissarek 2013; Pelttari et al., 2017).

Since the early 2000s, several steps have been taken to improve the provision of hospice and palliative care and their integration into the public health system (Centeno et al., 2013; Pelttari and Pissarek, 2013). A reform in 2006 created the possibility of people signing living wills (PatVG, 2006) and a medical power of attorney (Sachwalterrechts-Änderungsgesetz, 2006). In 2012, a process guiding manual was introduced and is today an important quality measure in hospice and palliative care (GÖG/BMG, 2012). In 2017, a pilot project (*Vorsorgedialog*) was set up to capture preferences of older people with regard to their deaths. This includes a coordinated communication process of medical and LTC staff in residential care facilities with patients and their relatives or trusted persons. Another pilot project (HPC Mobil) aims since 2015 to remove barriers for older people to die at home

by providing comprehensive training to care professionals working in mobile care services (Beyer et al., 2017).

Despite these advances, significant provision gaps have been identified with regard to day hospices, palliative consultancy services, and beds in inpatient hospices (Pelttari and Nemeth, 2014). In addition, there is increased awareness of the need for palliative care for children, adolescents and young adults in the current reform package. Yet, hospice and palliative care for children, adolescents and young adults thus far remain in its infancy (Nemeth and Pelttari, 2016).

■ 5.11 Mental health care

Mental health care provision is based on a mixed system of different providers across the social and health care sectors with provision settings varying largely across *Länder*. Psychiatric and psychosocial care can be provided by psychotherapists, clinical and health psychologists and independently practising psychiatrists (Hofmarcher and Quentin, 2013). Psychotherapy is practiced usually by psychotherapists (non-physicians) who are registered with the BMASGK or physicians with training in psychotherapy while psychiatric care is practiced by psychiatrists (trained physicians). Psychotherapists can provide services via care associations (*Versorgungsvereine*) that have contracts with SHI funds or as independently practising therapists without SHI contract. Additionally, socio-psychiatric services provided by psychologists, psychiatrists, social workers and psychotherapists play a key role in mental health care.

Psychotherapy is usually only partially covered by SHI funds. The contingent of fully covered psychotherapeutic sessions is limited (up to 40 hours per patient) and allocated to only a few providers (care associations, outpatient clinics or counselling centres). Most psychotherapeutic services are provided beyond this limited contingent and require cost-sharing. SHI pay a fixed amount (€21.8 per 1-hour session) as a subsidy to patients with proven psychiatric illness. Differences between the cost of the session and the SHI subsidy have to be covered by patients out-of-pocket. On average patients are left with an out-of-pocket expenditure of €50 per session (Ärzteblatt 2009; PsyOnline, 2018).

Psychiatric care services provided by contracted psychiatrists (trained physicians) or in outpatient clinics are usually fully funded by SHI funds.

However, on average only 19% of all independently practising psychiatrists had a contract with one or more SHI funds in 2015 (with regional differences ranging from 63% in Burgenland to 7% in Vienna) (ÖÄK, 2015). Patients can use their services upon direct payment of the requisite fee and can subsequently claim reimbursement from their health insurer for 80% of the fee that would have been paid for a contracted psychiatrist performing the same service (WGKK, 2017a).

While ambulatory mental health care services expanded to some extent, the volume of inpatient services has decreased over the past decades. In 2016, about 3 461 hospital beds or 0.05 beds per 1 000 inhabitants were available for psychiatric care (BMGF, 2016h). The majority of these hospital beds (1 861 or 53.8%) were located in specialized facilities; 1 557 psychiatric hospital beds for adults (45%) and 384 beds for children and adolescents were integrated in psychiatric wards in general hospitals (BMGF, 2016h). In addition, specialized service structures exist for patients suffering from addiction ranging from early intervention, inpatient treatment to social reintegration (see <https://suchthilfekompass.goeg.at>).

Mental health care provision in Austria still faces challenges given the institutional separation between inpatient, primary and secondary ambulatory care and social care. Mental health services for children and adolescents in the ambulatory sector continue to be insufficient partially due to workforce shortages. The expansion of services for this population group is included as a specific measure and indicator in the Federal Target-Based Governance Agreement 2017–2021.

Efforts have been undertaken to improve mental care for other vulnerable groups, namely refugees and suicidal persons. A coordination platform for psychosocial support for refugees and those helping refugees was established in 2017 (BMGF, 2017a) and a coordination hub was set up at the GÖG for the prevention of suicides.

■ 5.12 Dental care

The regulatory framework for dental care provision is laid out in the Dentists Act (Zahnärztegesetz, 2005). All dentists have to register with the Austrian Dental Chamber. Dental care in Austria is mainly provided by private single or group practices and by outpatient dental clinics run by the SHI funds

(e.g. in Vienna). In 2015, about 20% of all ambulatory dentists did not have a contract with a SHI fund.

A number of dental care services (e.g. orthodontic treatment, prosthesis or certain surgical procedures) are only partially covered by SHI funds and require prior authorization. Since January 2013 outpatient dental clinics are allowed to provide these services at lower prices than ambulatory independent practices (BMGF, 2017b).

Removable orthodontic appliances for young children are usually fully covered after approval and when performed by contracted dentists (WGKK, 2017b). Since July 2015, this includes also fixed orthodontic appliances for children and adolescents up to the age of 18 with considerable tooth misplacement (Index of Orthodontic Treatment Need > 3). Around 30 000 children and adolescents are estimated to be in need of fixed orthodontic appliances every year. Availability of data on the number of children and adolescents that received appliances is limited to the SHI fund of Lower Austria and Vienna that covered costs for 3 032 and 5 274 fixed orthodontic corrections respectively between July 2015 and June 2016 (Austrian Court of Auditors, 2018).

Based on self-reported data from the Austrian Health Interview Survey 2014 (ATHIS), around 5% of the respondents said that they did not consult a dentist for financial reasons (7% with migrant background) while nearly three out of four Austrians aged 15 years or above stated that they consulted a dentist in the last year (Statistics Austria, 2015).

Patients frequently travel to neighbouring countries for dental care. In particular, Austrians increasingly seek care in Hungary for prosthetic treatments not or only partially covered by Austrian SHI. Overall treatment costs and hence also private cost-sharing levels are considerably lower while quality of treatment is very close to Austrian standards (Winkelmann et al., 2013).

The competence centre for oral health with the chief dental officer is located at the GÖG. The centre, established in 1997, is a coordination office for the oral health survey and stimulates discussions on the improvement of oral health care among relevant stakeholders (i.e. SHI funds, federal government, *Länder*). The health care reform 2017 aims to improve oral health status mainly by reducing caries in 6-year-old children (ZS-G, 2017).

Health promotion and prevention programmes, which are usually provided in kindergartens and schools, are organized at *Länder* level (GSÖ 2017).

■ 5.13 Complementary and alternative medicine

Diagnosis, treatment or care based on complementary and alternative medicine (CAM) are only permitted, when provided by legally recognized health care professionals (doctors, psychotherapists, pharmacists, midwives etc.). Physicians have to provide patients with information that allows them to make informed choices (e.g. on the effectiveness of CAM) (HVB, 2017h). Other professions (orthopaedic technicians, cosmeticians or others) may provide complementary methods based on relevant training but they are not permitted to diagnose or treat diseases. The BMASGK has issued checklists for identifying dubious practices in the provision of CAM (BMGF, 2017d).

The number of physicians offering CAM is probably increasing, as documented by an increasing number of CAM certificates awarded by the Austrian Medical Academy for methods such as acupuncture, applied kinesiology, Chinese diagnostics and therapy, homeopathy, and manual medicine. While in 2000 only 3 543 physicians were certified in CAM, in 2016 there were already 7 849 physicians (about 18% of active physicians in Austria) with one or more CAM certificates. Of those, 4 301 physicians were certified providers of acupuncture, 52 were certified in applied kinesiology, 314 in Chinese diagnostics and therapy, 731 in homeopathy and 2 451 in manual medicine (Österreichische Akademie der Ärzte, 2017).

In principle, SHI funds are not obliged to cover CAM due to lack of scientific proof of effectiveness and appropriateness. Certain services and treatments such as homeopathy, pain relief, acupuncture, massages, balneotherapy or electrotherapy are (partly) reimbursed. Although the SHI's fixed catalogue of procedures is regularly reviewed and revised, a specific CAM list still does not exist. Therefore, patients primarily pay OOP for CAM or use private insurance to cover cost-sharing (WHO, 2001).

■ 5.14 Health services for specific populations

As mentioned earlier, SHI covers virtually all persons living in Austria (99.9%). However, a very small minority of residents that are neither employed, co-insured, or receive any form of unemployment or social aid are not covered (e.g. homeless people, irregular immigrants).

A range of health services is available to this population group which is in general free of charge: annual preventive check-ups, hospital emergency care treatment of communicable diseases (e.g. TB treatment), HIV/Aids testing and treatment in certain institutions, mother-child-pass screenings and various vaccinations for children up to the age of 15 years (Ladurner et al., 2011).

Several initiatives are operated by NGOs and charities that aim to ensure (basic) health care provision for marginalized groups without health insurance. Most of them are concentrated in Vienna (BKA, 2017a). For example, the Medical and Social Advisory Service in Vienna (AmberMed) provides general medical and specialist care, medication and social counselling free of charge mainly for (irregular) immigrants. It cooperates with laboratories, diagnostic institutes, external medical specialists and the Austrian Red Cross (Spak, 2015). Other similar initiatives located in Vienna are the *Neunerhaus* initiative, the Aids Support (*Aids Hilfe*) and the *Marienambulanz* in Graz (Styria). The Hospital of the Brothers of Saint John (*Krankenhaus der Barmherzigen Brüder*) provides a wide range of services related to inpatient and ambulatory care to irregular immigrants and cooperates with the above-mentioned institutions in Vienna.

6

Principal health reforms

Recent years have witnessed two major policy developments that aimed to improve population health and overcome the fragmentation of responsibilities and financing by promoting joint planning, decision-making and financing. The first was the development and adoption of the 10 Austrian Health Targets in 2012, which serve as a new guiding framework for Austria's health policy and for ongoing and future reforms until 2032. The targets were developed in a broad participatory process and build upon a Health in All Policies approach. The overarching goal for all targets is to increase healthy life expectancy of the Austrian population by two years. The targets were adopted by the federal government but received broad support from all relevant stakeholders and provide a common vision for the future development of the health system.

The second initiative was the establishment of the new target-based health governance system in 2013, which has instituted a new supreme decision-making body for the health system: the Federal Target-Based Governance Commission (B-ZK). The B-ZK brings together key players from the federal government, the *Länder*, and SHI funds who agree on common goals, objectives and targets for the further development of the health system. These goals are formalized in Federal Target-Based Governance Agreements. State Target-Based Governance Commissions subsequently agree on State Target-Based Governance Agreements based on the Federal Agreement. The aim of this new target-based health governance system is to improve coordination and policy coherence while leaving the constitutional division of powers and responsibilities unchanged.

The first Federal Target-Based Governance Agreement was concluded in 2013 for the period until 2016. It included 12 strategic goals grouped into four key governance areas of: 1) financial targets, 2) health care structures, 3) health care processes and 4) health care outcomes. All reform activities in the years 2013 to 2016 were consequently linked to the first Federal Target-Based Governance Agreements. The most important goal with regard to financing was to bring down publicly financed health expenditure growth to 3.6% per year in 2016 through the introduction of a budget cap covering expenditure of federal and state governments as well as of SHI funds. The budget cap and breakdown of the financial targets for each *Land* and SHI fund were set with the *Länder* contributing 60% and SHI funds 40% to total cost containment. One of the most important reform activities with regard to health care structures was the development of a new approach for the provision of primary health care, which ultimately led to the adoption of the Primary Health Care Act in 2017.

A second Federal Target-Based Governance Agreement was signed in 2017 defining goals for health reforms for the period to 2021. The agreement mandates the establishment of 75 primary health care units and the strengthening of ambulatory specialist care besides supporting further developments in the area of health literacy and health promotion. Publicly financed health expenditure growth is targeted to be reduced to 3.2% per year.

Finally, the new government has announced in its coalition agreement of January 2018 to embark on a major structural reform. While details are not yet available, the plan is to merge the nine regional SHI funds in order to create a single Austrian SHI fund (*Österreichische Gesundheitskasse*), which would cover almost 80% of the insured population.

■ 6.1 Analysis of recent reforms

The following section focuses on health reforms since 2012. A short narrative overview of previous health reforms (2005–2011) is given in section 2.2.2. More details are also provided in the Austrian HiT reports 2006 (Hofmarcher and Rack, 2006) and 2013 (Hofmarcher and Quentin, 2013).

Table 6.1 provides an overview of health reforms and policy measures implemented since 2012. Three major policy developments at federal and *Länder* level stand out as they introduced significant changes for the

TABLE 6.1 Overview of health care-related reform actions in Austria since 2011

| YEAR | REFORM OBJECTIVES | CONTENTS, INSTITUTIONS AND LEGAL BASIS | DETAILS IN SECTIONS |
|-----------|--|---|---------------------|
| 2011 | Centralized funding and monitoring of long-term care provision | Establishment of a long-term care fund (<i>Pflegefonds</i>) under BMASGK leadership | 5.8 |
| 2012 | Increasing healthy life expectancy until 2032, following the WHO recommendation to develop frameworks to maximize the health status of the entire population | Adoption of 10 Austrian Health Targets by the Federal Health Commission and the Austrian Council of Ministers | 2.6.1. 6.1.1 |
| 2013 | Improving mental health care including for vulnerable groups, such as refugees and suicidal persons | National strategy for mental health, national strategy for suicide prevention | 5.11 |
| 2012–2013 | Establishing a joint, target-based health governance system bringing together the major actors (federal government, state governments, and SHI funds) in the health system | First Federal Target-Based Governance Agreement (outlining the agenda for the health reform period 2013–2016) based on Article 15a of the Federal Constitutional Law (<i>Verordnung gemäß Artikel 15a Bundes-Verfassungsgesetz</i>), the Federal and State Target-Based Governance Commissions (B-ZK, L-ZK) and working groups. | 2.2.3 6.1.2 |
| 2013 | As part of the target-based health governance system introducing an expenditure containment path by budget caps to ensure affordability and sustainability of the health system (stepwise reduction of public health expenditure growth from 5.2% to the projected annual average GDP growth of 3.6% p.a. in 2016) | Austrian e-health strategy, Austrian Electronic Health Record (<i>Elektronische Gesundheitsakte</i> , ELGA) and its e-medication and e-report applications, Health Telematics Act 2012, Health Telematics Regulation 2013, ELGA Regulation 2015 | 4.1.4 |
| 2013 | Reducing organizational barriers, improving coordination and empowering patients by processing of health data | Introduction of the Austrian Inpatient Quality Indicators (A-IQI) on the basis of administrative data | 2.7.1 |
| 2013 | Initiative for outcome quality assessment in the inpatient sector | Minimum quality management requirements for health care providers, revision of quality strategy (2016/2017) | 2.8.2 |
| 2014 | Definition of minimum standards for quality management that have to be fulfilled by all health care providers | Concept for primary health care provision, adopted by the Federal Target-Based Governance Commission (B-ZK) | 5.3 6.1.3 |
| 2014–2016 | Strengthening primary and ambulatory care | Health Promotion Strategy adopted by the B-ZK (2014, updated in 2016), National Strategy on Improving the Quality of Communication in Healthcare (2016) | 5.2.3 |
| 2014–2016 | Coordinating health promotion actions in Austria including regulations for the allocation of resources | | |

| | | | |
|-------------|--|--|--|
| 2015 | Reforming postgraduate medical training for GPs and specialist physicians starting with a clinical basic education and complemented with a specialist training in recognized training institutions | Medical Training Regulation (Ärzttausbildungsordnung 2015), Austrian Medical Chamber and Federal Ministry of Health | 4.2.3 |
| 2016 | Amending the training and further education of nursing professionals | Nursing Act (2007/amendment 2016) (<i>GuKG-Novelle 2016</i>): Creation of a new profession of assistant nurse with more responsibilities and reform of professional profiles adapted to new care settings, i.e. skill-mix | 4.2.3 |
| 2016 | Introduction of a comprehensive assessment of the performance of the health system | Performance measurement framework, baseline report adopted by the B-ZK | 2.7.1 |
| 2017 | Introducing a unified catalogue of outpatient procedures provided by both ambulatory (extramural) physicians and hospital outpatient departments (2014) and implementing a new outpatient LKF system (<i>LKF ambulant</i>). A cross-sectoral documentation of diagnoses is planned to enter service by the end of the current health care reform period (2021) | Introduction of a unified catalogue of hospital outpatient services. It serves as a centrepiece for a new DRG-based payment system (LKF ambulant) (national rollout until 2019). | 2.7.1 3.7.1 |
| 2017 | Further strengthening and institutionalisation of cooperation between federal government, state governments and SHI funds | First Federal Target-Based Governance Agreement (outlining the agenda for the health reform period 2013–2016) based on Article 15a of the Federal Constitutional Law (<i>Vereinbarung gemäß Artikel 15a Bundes-Verfassungsgesetz</i>), the Federal and State Target-Based Governance Commissions (B-ZK, L-ZK) and working groups. | 2.2.2 4.1.1 6.1.3 |
| 2017 | Strengthening primary and ambulatory care | Primary Health Care Act (Primärversorgungsgesetz, 2017) regulating scope of services, contractual and organizational requirements of primary health care units among others, establishment of first pilot projects of multi-professional and interdisciplinary primary health care units | 5.3 |
| 2017 | Strengthening joint health care planning and extending traditional hospital planning to ambulatory (extramural) care and rehabilitation care planning as well as major equipment planning in the Austrian Structural Plan for Healthcare; supporting its effectiveness by creating the possibility to make specific contents of it legally binding | Revision of the Austrian Structural Plan for Healthcare and Regional Structural Plans for Healthcare; expanded responsibilities of the B-ZK and, to some extent, also of the State Target-Based Governance Commissions to establish the Structural Plans for Healthcare, which are now partly legally binding (<i>Vereinbarungsumsetzungsgesetz, 2017</i>); adoption of legal regulations on binding contents of health care planning by new Health Care Planning Agency (<i>Gesundheitsplanungs GmbH</i>) | 2.2.3 2.5 |
| 2017 | Implementing a systematic record of numbers of health care professionals working outside hospitals | Federal Act on the Registration of Health Care Professions (<i>Gesundheitsberuferegister-Gesetz, 2016</i>) building the legal basis for the establishment of a Health Care Professional Register (<i>Gesundheitsberuferegister</i>) implemented as of July 2018 | 2.8.3 4.2.1 |

functioning of the Austrian health system: the first was the development of the Austrian Health Targets (*Gesundheitsziele Österreich*) that represent the guiding framework for Austrian public health policy in general and for the ongoing health reform process in particular. The other two were linked to the establishment of a new target-based health governance system, which was formalized through two Federal Target-Based Governance Agreements in 2012 and 2017. Most other reform activities included in Table 6.1, such as the adoption of the revised Austrian Structural Plan for Healthcare in 2017, trace back to the first Federal Target-Based Governance Agreement of 2012 (see section 6.1.3). Activities in line with the second Federal Target-Based Governance Agreement (see section 6.1.4) are currently being devised. They are therefore not included in Table 6.1 as, for most cases, concrete implementation and – if necessary – subsequent enactment remains to be specified in detail.

■ **6.1.1** *Endorsement of Austrian Health Targets based on a Health in All Policies approach*

A BROAD PARTICIPATORY APPROACH LED TO THE ADOPTION OF AUSTRIAN HEALTH TARGETS

In 2011, the Federal Health Commission and the Austrian Council of Ministers initiated the development of Austrian Health Targets (<https://gesundheitsziele-oesterreich.at/>). The objective was to increase the healthy life expectancy of the Austrian population by an average of two years by 2032. An important motivation for the initiative was that healthy life expectancy in Austria was – and still is – below the EU average (see section 1.4). Population health and health inequity are strongly linked to living and working conditions as well as lifestyles. Therefore, the development of the Austrian Health Targets followed recommendations of the WHO and the EU and adopted a Health in All Policies (HiAP) approach.

Stakeholders of all relevant political and societal areas were invited to participate in the elaboration of the Austrian Health Targets. Between October 2011 and March 2012, a committee comprising representatives of nearly 40 institutions drafted a proposal of 10 Health Targets. The committee included public authorities at the federal, *Länder* and municipal level;

social insurance funds; Social Partners; health care professionals; health and social care institutions; advocacy groups for patients, children/adolescents, elderly and socioeconomically disadvantaged people; and academic experts. In addition, about 4 500 citizens expressed their views in an online consultation. The final targets were adopted by the Federal Health Commission and the Austrian Council of Ministers in summer 2012 after feedback from all the involved institutions, civil society and experts had been incorporated (BMGF, 2017e; BMGF, 2017f).

The 10 Austrian Health Targets (see Box 6.1) are based on a number of guiding principles. In line with the aforementioned HiAP approach, these include, for example, orientation towards health determinants and promotion of equal opportunities. They serve as a general guiding framework for Austria's public health policy, including also for health reforms as part of the new target-based health governance system.

BOX 6.1 Overview of Austrian Health Targets

- Target 1: To provide health-promoting living and working conditions for all population groups through cooperation of all societal and political areas (i.e. HiAP).
- Target 2: To promote fair and equal opportunities in health, irrespective of gender, socioeconomic group, ethnic origin and age.
- Target 3: To enhance health literacy in the population.
- Target 4: To secure sustainable natural resources such as air, water and soil and healthy environments for future generations.
- Target 5: To strengthen social cohesion as a health-enhancing factor.
- Target 6: To ensure conditions under which children and young people can grow up as healthily as possible.
- Target 7: To provide access to a healthy diet with food of good quality for all.
- Target 8: To promote healthy, safe exercise and activity in everyday life through appropriate environments.
- Target 9: To promote psychosocial health in all population groups.
- Target 10: To secure sustainable and efficient health care services of high quality for all.

Source: BMGF, 2017f

THE MONITORING PROCESS INCLUDES INDICATORS FOR SPECIFIC SUB-TARGETS

A comprehensive monitoring process accompanies and evaluates the implementation of the Austrian Health Targets. Since January 2013, cross-sectoral working groups have operationalized health targets 1, 2, 3, 6, 8 and 9. This has led to the development of target specific strategies and to the definition of indicators at three levels: 1) health targets, 2) sub-targets, 3) actions (Winkler et al., 2014).

The monitoring of the Austrian Health Targets feeds into other health reforms and strategies such as the Target-Based Health Governance Reform (see below), the Health Promotion Strategy (see section 5.1.2) and the Child and Youth Health Strategy (see section 2.6.4). To date reports have been completed for seven health targets. The monitoring process of four health targets revealed that the majority of actions were implemented (more than 90% of 133 defined actions).

In general, the health targets are thought to have been relatively successful in shaping high-level strategies and decisions (i.e. Federal Health Commission, Council of Ministers, Target-Based Health Governance Reforms 2013 and 2017). Furthermore, they have been integrated in corresponding processes at state level. To date, Carinthia, Upper Austria, Salzburg, Styria, Tirol, and Vienna have published their own sets of targets (BMGF, 2016i).

6.1.2 *A new target-based health governance system to improve coordination and cooperation*

The fragmentation of responsibilities for financing and provision of services between the federal government, the *Länder* and the SHI funds is a characteristic feature of the Austrian health system (see section 2.3). Since the early 2000s, many challenges, such as the relatively high level of expenditure growth and the lack of care coordination, have been increasingly attributed to this fragmentation of responsibilities. When deficits of SHI funds and financial pressures at the *Länder* level increased in the aftermath of the financial crisis, this provided the impetus for a reform aiming to overcome the traditional fragmentation.

Former and recurring recommendations by national and international institutions had focused on streamlining the constitutional competences in the health sector. However, this was not feasible as a constitutional majority in both chambers of parliament could not be achieved.

In 2012, the federal government (Ministry of Health and the Ministry of Finance), the SHI funds and the *Länder* therefore jointly initiated a fundamental reform of the health system. The federal government, the SHI funds and the *Länder* cooperated to develop a new governance system, which could potentially achieve the overall aim of improved coordination in the health system while leaving the constitutional division of powers and responsibilities unchanged (Czypionka, 2015). The new governance system is based on a common vision for the future development of the health system, and relies on cooperation and coordination of the different stakeholders who are willing to set their own interests aside for the benefit of achieving jointly agreed goals or targets (both translate as *Ziel* in German).

The new governance system was institutionalized through the setting up of the Federal Target-Based Governance Commission (*Bundes-Zielsteuerungskommission*, B-ZK) in 2013, where representatives of the federal government, the *Länder*, and the SHI funds agree on common goals or targets for the health system (see also section 2.3.4). As a result, the B-ZK has become the supreme decision-making body of the Austrian health system. The legal basis for the target-based health governance system are civil contracts between the federal government, the *Länder* and the SHI funds (*Zielsteuerungsverträge*, Target-Based Governance Agreements) and agreements under Article 15a of the Federal Constitutional Law.

The Federal Target-Based Governance Agreement provides the basis for State Target-Based Governance Agreements (*Landes-Zielsteuerungsverträge*), which are approved by State Target-Based Governance Commissions (*Landes-Zielsteuerungskommissionen*). These agreements define details at the *Länder* level and operationalize the implementation of federal targets (see section 2.3.4).

The first Federal Target-Based Governance Agreement (*Bundes-Zielsteuerungsvertrag*) was concluded in 2013 outlining a reform agenda for a period of four years (2013–2016). In 2017, the B-ZK concluded the second Target-Based Governance Agreement, which defines goals for the ongoing 5-year reform period (2017–2021). The next two subsections provide an overview over these two reform periods.

To comply with the principals of accountability, responsibility and transparency, strategic goals with specific objectives and target values were defined. A comprehensive monitoring process was implemented to evaluate the implementation of these targets. Biannual monitoring reports provide up to date information to all stakeholders and allow a public debate on the progress of the health reform agenda (GÖG, 2017c).

■ 6.1.3 First health reform period (2013–2016)

The 2013 Federal Target-Based Governance Agreement specified 12 strategic goals grouped into four areas: 1) financial targets, 2) health care structures, 3) health care processes and 4) health care outcomes. The strategic goals were operationalized in 26 objectives, each specifying concrete measures (a total of 100 measures were defined), target values and deadlines (ZS-G, 2013).

FINANCIAL TARGETS: COST CONTAINMENT

The most important strategic goal with regard to financing was the containment of rising public health care expenditures in order to ensure long-term sustainability of the health system. Financial targets were negotiated in line with the fiscal equalization laws, resulting in a budget cap for public health spending that was set to meet fiscal targets of the EU Maastricht criteria defined in the consolidation package (*Stabilitätspakt*) for the period 2012–2016 (Österreichischer Stabilitätspakt, 2012) (see section 2.8.1).

The budget cap was based on gradual containment of public health expenditure growth, aiming to bring it in line with the forecasted nominal GDP growth until 2016. As a result, the annual target growth rate was reduced in a stepwise manner from 5.2% (average between 1990 and 2010) to the projected annual average GDP growth rate of 3.6% per annum in 2016. The overall budget cap was broken down to the *Länder* and to SHI funds, with the *Länder* contributing 60% and SHI funds 40% to total cost containment. This breakdown of the financial targets for each *Land* and SHI fund were a result of political negotiations. For monitoring of state health expenditure, a new calculation method was introduced that builds on the OECD System of Health Accounts and allows a breakdown of expenditure at the *Länder* level.

Overall, financial targets were achieved at national level for all years (2013–2016), during which public health expenditure grew on average by only 3.6% per year. At the end of the period, public health expenditure in total remained almost €1 000 million below the allowed budget cap (see Table 6.2). However, attainment of financial targets varied across *Länder* and SHI funds, from over-fulfilment (e.g. company health insurance funds or the Insurance Fund for the Railway and Mining Industries) to non-attainment (e.g. the regional SHI fund of Vorarlberg throughout the period; the regional SHI funds of Tirol, Salzburg and Vienna for specific years).

TABLE 6.2 Public health expenditure (without long-term care), 2010–2016, in million €

| | 2010 ¹ | 2011 ¹ | 2012 | 2013 | 2014 | 2015 | 2016 |
|--------------------------|-------------------|-------------------|--------|--------|--------|--------|--------|
| Agreed budget cap | 20 262 | 20 931 | 21 873 | 22 813 | 23 748 | 24 675 | 25 563 |
| Expenditure (SHA) | 20 277 | 20 769 | 21 663 | 22 123 | 22 992 | 23 841 | 24 614 |
| Growth rate | | 2,4% | 4,3% | 2,1% | 3,9% | 3,7% | 3,2% |

Note: ¹ Baseline

Source: Bachner et al., 2018a

The Austrian Court of Auditors criticized the methodology by which financial targets were derived, focusing solely on expenditures and not revenues. This was particularly concerning in regard to SHI funds that had revenue growing in line with wages but not GDP. Moreover, the level of cost containment was considered insufficient to achieve real structural change (Austrian Court of Auditors, 2016a). At the same time, various stakeholders such as the Austrian Medical Chamber criticized that the financial targets posed constraints on the health system with negative consequences for service provision (ÖÄK, 2012).

HEALTH SYSTEM STRUCTURES: STRENGTHENING PRIMARY HEALTH CARE AND INCREASING EFFICIENCY

With regard to health system structures, the Federal Target-Based Governance Agreement defined three strategic goals. First, it aimed at shifting health care provision to the so-called “best point of service”. This was defined as the right place for providing the best treatment, at the right

time, and at the lowest cost from a societal perspective (Vereinbarung gemäß Art. 15a B-VG Zielsteuerung-Gesundheit, 2017).

One particularly important sub-target aimed at contributing to the achievement of this goal was the strengthening of primary health care through the introduction of multi-professional and interdisciplinary primary health care units. These units should act as the first entry point to the health system and take on a central and coordinating function. A primary health care concept was adopted by the B-ZK in June 2014 (BMG, 2014a), which ultimately – after intense political struggle and substantial delays – led to the adoption of the 2017 Primary Health Care Act in the second reform period (see below).

The second goal focused on adjusting care provision to increase efficiency, e.g. by reducing hospital admissions and average length of hospital stays, fostering day surgery and ambulatory care, and reducing parallel structures. For several of these points, very specific targets were defined, e.g. a reduction of the hospital discharge rate in funds hospitals of 1.1% to 4% per year. For other points, targets mandated, for example, the adjustment of health care planning and the definition of new financing models.

The third goal aimed at adjusting basic and continuous education of all relevant health personnel in line with the care provision needs of the population. The goal was partly achieved. In 2015, postgraduate medical education was reformed (Medical Training Regulation, 2015) and the Nursing Act (2007) was amended in 2016 creating a new profession of assistant nurse with more competences (see Table 6.1). The Primary Health Care Act (2017), which should set prerequisite for fulfilling this goal, was only passed in the second health reform period.

Regular monitoring reports as part of the reform process show that several of these targets were met. For example during the first reform period (2013–2016), hospital bed days in funds hospitals could be reduced by 10% (target value: 1.8–2.2% per year) and hospital discharges by 8% (target value 1.1–4% per year) (see section 5.4). Despite these reductions, Austria still has the second highest hospital discharge rate in the EU. Reduction of the average length of stay and pre-surgical length of stay were not achieved despite decreasing trends (Bachner et al., 2017) (see also section 4.1.2).

With regard to the “best point of service” goal, the revision of the Austrian Structural Plan for Healthcare in 2017 (see Table 6.1) was a major achievement. It includes the establishment of defined service baskets for every

care level at the regional level, based on patients' needs, aimed at providing treatment at the respective "best point of service". The Plan also includes provisions for ambulatory (extramural) services, defining the types and numbers of physicians on the basis of local demand as well as functions and services to be provided per specialty, which is intended to contribute – among others – to shifting service provision away from inpatient care (see section 2.5).

HEALTH CARE PROCESSES: FOSTERING COORDINATION, QUALITY AND STANDARDIZATION

In order to achieve better coordination of care across sectors, important objectives with regard to health care processes were the development of federal quality standards for selected areas of care, harmonized documentation of diagnoses and services across different ambulatory providers (i.e. hospitals and ambulatory physicians), and streamlining prescription processes and developing joint financing mechanisms to assure that patients receive medications at the "best point of service". Another objective was the further development of e-health projects, such as the electronic health record (ELGA) and its applications, e.g. e-medication. Furthermore, integrated care programs should be developed for common or chronic diseases.

Some of these objectives were achieved. National quality standards and guidelines were developed and implemented (e.g. for hospital admissions, discharges and pre-surgical diagnostics). The implementation of ELGA was initiated in 2015 (see section 4.1.4) and a telephone helpline for patients was launched with some delay in 2017 (see section 2.9.1). However several other objectives turned out to be too ambitious. Particularly, progress towards the development of new integrated care models was slow. Although 14 integrated care models were implemented, national stakeholders failed to agree on quality standards which would have been necessary for defining and monitoring related targets within the given time frame. In addition, stakeholders failed to agree on joint financing or procurement of medicines. Finally, the harmonized coding of diagnoses in different ambulatory care settings are still in the initial stages. By 2016, five pilot projects had been carried out. Based on the experiences of these projects, rollout of cross-sectoral harmonized coding of diagnoses in the ambulatory (extramural) sector is planned by 2021 (section 3.7.1).

HEALTH OUTCOMES: IMPROVING QUALITY OF LIFE AND QUALITY OF CARE

The Federal Target-Based Governance Agreement included four strategic goals related to health outcomes: (1) increasing healthy life years and quality of life, (2) measuring and improving quality of care, (3) improving patient safety and health literacy, and (4) assuring a high level of population satisfaction with the health system. Several of the objectives related to these goals were achieved.

First, the Health Promotion Strategy was agreed on in 2014 based on the Austrian Health Targets with the aim to improve people's life expectancy and quality of life. The strategy provides an impact-oriented framework for the period until 2022. It focuses on specific fields of action, e.g. early childhood interventions (*Frühe Hilfen*) (see section 2.6.4) and defines priorities, e.g. initiatives for health in schools, healthy environments and lifestyles, health literacy and social inclusion of the elderly with mental problems (see section 2.6.2) (BMGF, 2016d).

Second, the Austrian Inpatient Quality Indicators (A-IQI) were developed further and selected results were made available in regular public reports and on the web portal *kliniksuche.at*, launched in 2016 (see section 2.9.1). In this regard, quality measurement in the ambulatory (extramural) care sector (see section 2.8.2) and first initiatives to establish standardized diagnostic coding are important steps (see above). Third, a comprehensive outcome measurement framework for the health system was developed (see section 7.4.2). This includes measurement of risk factors and health status using various databases and surveys, e.g. on tobacco consumption, as well as data on inpatient mortality, patient satisfaction, and life expectancy (Bachner et al., 2015).

LESSONS LEARNT FROM THE TARGET-BASED HEALTH GOVERNANCE APPROACH

Towards the end of the reform period, an internal evaluation of the reform process was initiated to provide input for the following reform period. The evaluation showed that about 62% of all targeted actions had been achieved by the end of 2016 (Bachner et al., 2017). In addition, a number of strengths and weaknesses of the reform process were highlighted:

- On the positive side, institutional capacity was raised by establishing new governance structures. Federal and State Target-Based Governance Commissions were made jointly responsible and accountable for target achievement. Further, better decision-making and communication processes were made possible under these structures. Also, shared responsibility led to an increased number of cross-sectoral projects (e.g. pilots of primary health care units, telephone helpline).
- On the negative side, many measures were not impact-oriented but focused on evaluation or drafting of new concepts. Despite enhanced collaboration, major intersectoral problems remained unresolved, such as the lack of joint procurement or financing of medicines across inpatient and ambulatory (extramural) sectors.

While a certain degree of detail may provide a sound roadmap for implementation, the targets and actions were technically too detailed (in total 106 targets and actions) and thus failed to attract sufficient political commitment.

Finally, the new governance system is characterized by a high degree of bureaucratic burden. Before decisions could be taken at the senior decision-making level of the B-ZK (see section 2.3.4), major results of working groups had to be discussed. In the case of lack of communication with subordinate levels, decisions were refused and passed back, making the whole process complex and lengthy. However, if decisions were once taken, commitment of the health reform partners to various reform activities was strong (see also Table 6.1).

■ 6.1.4 *Second health reform period (2017–2021)*

The second Federal Target-Based Governance Agreement for the period 2017 to 2021 was signed in 2017 and sets four strategic goals that are further specified in 11 objectives with concrete indicators and target values (see Table 6.3). It builds on the experiences, priorities and guiding principles of the first health reform period. The legal basis for the second reform period are two new agreements under Article 15a of the Federal Constitution and the Health Reform Act (*Vereinbarungsumsetzungsgesetz*, 2017).

The new Target-Based Governance Agreement is more ambitious in terms of agreed actions and financial targets. Yet, the complexity and the number of strategic goals and objectives have been reduced and medium- or long-term tasks have been summarized. The reform partners also streamlined the complex governance structure by reducing the number of bodies and working groups involved. A standing high-level committee (*Ständiger Koordinierungsausschuss*) was set up as a body of the Federal Health Agency (BGA) with a preparatory function for the B-ZK and decision-making competences in defined areas (see section 2.3.4) (Vereinbarung gemäß Art. 15a B-VG Zielsteuerung-Gesundheit, 2017).

The new Agreement is also more impact-oriented as the achievement of objectives will be assessed using outcome indicators. In total, 22 indicators were defined including, among others, healthy life years, days of hospitalization per 100 000 inhabitants, number of primary health care units, preoperative length of stay, and prevalence of polypharmacy (see Table 6.3). The accompanying monitoring process will be less complex given the reduced number of indicators and restructured reporting. In addition, the new agreement also includes objectives at the *Länder* level and adjusted State Target-Based Governance Agreements (*Landes-Zielsteuerungsverträge*).

The second Target-Based Governance Agreement maintains many priorities and reform efforts of the first reform period, which have, in fact, been on the political agenda for several decades.

As shown in Table 6.3, the first strategic goal is to optimize resource allocation by reducing overutilization of inpatient care and by strengthening ambulatory care, in particular primary health care. Objective 1.1 on the set-up and development of primary health care models is based on the Primary Health Care Act adopted in 2017.

The Act was heavily criticized by the Austrian Medical Chamber for two main reasons. First, it did not provide the option to employ physicians in independent practices (see section 2.8.2) and it required contracted physicians to resign their existing SHI contracts to create a primary health care unit with other physicians under a new contract. A transition period for full implementation of new contracts was therefore introduced (see the General Social Insurance Act (ASVG)). Second, the Chamber feared the competition from larger-scale (for-profit) organizations entering the field of primary health care provision. For this reason, a multi-stage procedure was included

in the law that prioritizes contracted physicians (see the Primary Health Care Act). The intense political debate substantially delayed the adoption of the Act until August 2017. The Primary Health Care Act provides the legal framework for the establishment of at least 75 primary health care units until 2021, which will be supported through specific programmes (e.g. start-up services). Primary health care units can be set up in the form of a centre or a network. They are required to consist of a multi-professional team of GPs and qualified nurses, complemented by paediatricians or specialists and other health and social professionals (e.g. physiotherapists or social workers). Primary health care units are required to offer a certain range of services, extended opening hours, home visits, competencies in treating patients with special needs, and they have to ensure continuity of care. Each unit has to submit a care concept describing how its service provision and organizational structure responds to the health needs of the local population.

Moreover, the new Target-Based Governance Agreement also introduced an amendment to the ASVG requesting a new payment scheme for primary health care and ambulatory specialist care that incorporates lump sums and capitation payment, fee-for-service and pay-for-performance elements (see objective 3 in Table 6.3).

Several objectives of the second Target-Based Governance Agreement aim at improving accessibility of ambulatory care. Objective 1.2 aims to expand the number of multidisciplinary teams in ambulatory specialist care (including hospital outpatient departments). Objective 4 demands the optimization of health services for children and adolescents, including targets for the expansion of multi-professional teams in psychiatric and psychosocial institutions and more early childhood interventions (*Frühe Hilfen*) (see section 2.6.4). These measures are combined with monitoring of opening hours and waiting times.

The second strategic goal aims at ensuring population satisfaction by optimizing care and treatment processes. This is to be achieved through five more specific objectives, which include the further development of e-health solutions (e.g. ELGA and its applications, mHealth, pHealth, survivorship passport), new integrated care programmes for common chronic diseases, enhanced cooperation across care settings and the introduction of standardized quality measurement in ambulatory care (see Table 6.3).

TABLE 6.3 Governance via strategic goals and objectives, overview of dimensions, targets and indicators of the health care reform 2017–2021

| STRATEGIC DIMENSION STRATEGIC GOALS | OPERATIVE DIMENSION OBJECTIVES | INDICATORS | TARGET VALUES/ TARGET DIRECTION |
|--|--|--|------------------------------------|
| <p>BETTER CARE</p> <p>S1: Strengthening of ambulatory (extramural) care while reducing overutilization of the inpatient sector and optimizing allocation of resources</p> | <p>1: Improvement of integrated care via joint, coordinated and legally binding planning combined with the implementation of targets 1.1 to 1.3</p> <p>1.1: Set-up and development of primary health care models</p> <p>1.2: Needs-based organization, coordination and enhancement of ambulatory specialist care</p> <p>1.3: Needs-based adjustment of inpatient care</p> <p>2: Securing availability and employment of staff for high quality health care services by taking into account: skill-mix, trainees, demographic trends</p> <p>3: Increased orientation of contracts and payment mechanisms towards care needs while supporting the “best point of service” aim</p> <p>4: Optimization of health care services for children and adolescents in selected areas</p> | <p><i>Indicators and target values are directly assigned to objectives 1.1 to 1.3, and have to be considered jointly for further analysis.</i></p> | |
| | | (1) Number of primary health care units established | 75 |
| | | (2) Share of population treated by primary health care units | ↑ |
| | | Further indicators to be developed (e.g. share of cases with completed treatment) | |
| | | (3) Number of contracted, multi-professional and/or interdisciplinary providers of ambulatory specialist care | ↑ |
| | | Further indicators and targets to be developed on effectiveness of multi-professional and/or interdisciplinary ambulatory care provision | |
| | | (4) Hospital discharge rate in funds hospitals ¹ | -2% p.a. |
| | | (5) Bed-days in funds hospitals | -2% p.a. |
| | | (6) Share of selected services conducted in day-care or ambulatory care settings | varying target values |
| | | (7) Number of occupied and approved training positions | No target values defined |
| | | (8) Physician density | |
| (9) Nurse to physician ratio in funds hospitals | | | |
| Indicators refer to objectives 1.1 to 1.3. | | | |
| (10) Children’s vaccination rates for measles, mumps and rubella | ↑ | | |
| (11) Supply of ambulatory child- and adolescent psychology care | ↑ | | |

| | | | | | |
|-----------------------------|---|---------------------------------|---|--|-----|
| HIGHER QUALITY | S2: Ensuring satisfaction of the population by optimizing care and treatment processes | BETTER CARE COORDINATION | 5: Using Information and Communication Technology (ICT) for health care provision, system governance and innovation | (12) Implementation level of ELGA | ↑ |
| | | | CARE AT THE RIGHT TIME | (13) Prevalence of polypharmacy | ↓ |
| HEALTHIER POPULATION | S3: Health promotion and prevention: Increasing healthy life years and improving quality of life for sick people | STAYING HEALTHY | | (14) Prevalence of potentially inadequate medication (PIM) in the elderly | ↓ |
| | | | LIVING HEALTHIER | Further indicators to be developed regarding TEWEB ² based on the evaluation of pilots | |
| BETTER VALUE | S4: Ensuring financial sustainability of public health expenditure | SECURE SUSTAINABILITY | | (15) Share of inpatient stays with a short preoperative length of stay (< 3 days ³) in funds hospitals on total inpatient stays. | 94% |
| | | | (16) Patients enrolled in a diabetes disease management program and participating physicians | ↑ | |
| | | | (17) Number of joint procurements of pharmaceuticals | ↑ | |
| | | | Indicators related to further quality measures in the ambulatory sector to be developed | | |
| | | | 9: Promoting the provision of benefits in kind by reducing regional, temporal and social access barriers | (18) Satisfaction with health care provision | →↑ |
| | | | 10: Strengthening of health literacy in the population | (19) Rate of respondents with excellent and sufficient health literacy | ↑ |
| | | | 11: Strengthening of targeted health promotion and prevention activities | (20) Healthy life years at birth | ↑ |
| | | | | (21) Daily smokers | ↓ |
| | | | | (22) Caries-free children | ↑ |
| | | | Indicators and target values refer to the financial targets, and compliance with the spending caps of Art. 7. Federal Target-Based Governance Agreement | | |
| | | | Continuation of the cost containment path started in 2013. The budget cap was again based on gradual decrease of public health expenditure growth rates, starting from 3.6% in 2017 to 3.2% or below in 2021. | | |

Notes: ¹Funds hospitals refer to acute care hospitals operating under public law, as well as acute care hospitals operated by non-profit organizations, which receive public funding from state health funds (LGF); ²TEWEB refers to the telephone and web helpline for patients. The ongoing pilot projects (*Gesundheitsberatung 1450*) provide a telephone helpline (see section 2.9.1); ³ Inpatient stays lasting less than 3 days (including 0-day admissions, excluding acute cases). Target direction explanation: ↑ = increase; ↓ = decrease; →↑ = maintain or increase; p.a., per annum. Source: ZS-G, 2017

Building on the implementation of ELGA in public hospitals in 2015, the renewed ELGA regulation (*ELGA-Verordnungsnovelle 2017*) mandates the stepwise rollout of ELGA to ambulatory health care providers and pharmacies which should be terminated by mid-2019. Completion of the nationwide rollout of ELGA is expected by 2021. Moreover, a new attempt has been launched to optimize use of medicines through joint procurement.

The third strategic goal aims at improving health literacy and strengthening health promotion. Activities are being coordinated by the Austrian health literacy platform, which was established in 2013 to bring together various actors from the federal and state level as well as from social insurance funds (see section 2.9.1). Also the public health portal www.gesundheit.gv.at (see section 4.1.4) has been further developed. As well as providing high-quality, peer-reviewed online information on health and health care, the portal contributes to improving the health literacy of the population. Furthermore, uniform criteria for Health Impact Assessments will be developed to foster target-oriented public health interventions.

Finally, fiscal sustainability of the Austrian health system remains a priority in the fourth strategic goal. Stakeholders agreed to introduce more stringent financial targets, with caps on public health spending growth to be reduced gradually from 3.6% in 2017 to 3.2% or below in 2021 (*Vereinbarung gemäß Art. 15a B-VG Zielsteuerung-Gesundheit, 2017*). The second health reform period further aims to address the fragmented and dual financing system by introducing an earmarked pool of financial resources at the federal level for the financing of supra-regional health care services, which constitutes a first commitment towards joint financing and planning.

■ 6.2 Future developments

Following general elections in October 2017, the conservative People's Party (ÖVP) and the Austrian Freedom Party (FPÖ) formed a new coalition government on 18 December 2017, which reassigned responsibilities of several ministries. In particular, the Federal Ministry of Health was merged with the Federal Ministry of Labour, Social Affairs and Consumer Protection, forming the new Federal Ministry of Labour, Social Affairs, Health and Consumer Protection (BMASGK).

In January 2018, the new federal government presented its governmental programme, which revealed substantial overlaps with the previous health reform agenda, e.g. concerning strengthening of primary health care, reallocation of resources, focus on public health and health literacy. However, the programme also envisages structural changes with a potentially major impact for the organization of the health care system and SHI funds (BKA, 2018b). Most importantly, the programme foresees a merging of the nine regional SHI funds which would create only one major Austrian SHI fund (*Österreichische Gesundheitskasse*) covering almost 80% of the insured population. The government expects efficiency gains and savings in administration. However, a recent major review of the Austrian SHI argues that the large number of insurance funds is not the greatest obstacle to efficiency. Instead the separate procurement of providers (SHI funds versus *Länder*) and limited risk adjustment pose the most important challenges (LSE Consulting, 2017). The government also plans to further harmonize services and cost-sharing levels across SHI funds (see section 3.4).

The reform of the primary health care system, that was initiated with the development of a new approach to the provision of primary health care during the first Target-Based Health Governance Reform period (2013–2016) and ultimately led to the Primary Health Care Act (2017), will remain a major priority. The government aims to further develop the new primary health care approach and address persistent challenges. In particular, raising the attractiveness of primary health care will be a priority to ensure the successful implementation of the new primary health care concept given the stagnating interest of health professionals to work in primary health care and their demographic characteristics, i.e. the ageing of the physician and health workforce population. Also regulation of new contractual agreements and start-up programmes will support the implementation of new primary health care units across the country. Finally, a holistic approach of primary health care will be enhanced through improved coordination with public health services.

7

Assessment of the health system

The Austrian health system is based on the principles of solidarity, affordability and universality. Virtually all the population is covered by social health insurance (SHI) and enjoys a broad benefit basket and good access to health care. Austria reports the lowest level of unmet need for medical care across the European Union (Eurostat, 2018h), despite relatively high out-of-pocket payments and differing waiting times for patients with and without voluntary health insurance (VHI). Vulnerable population groups enjoy various exemptions from cost-sharing requirements. However, rising imbalances between contracted and non-contracted specialists in urban and rural areas and the ageing of contracted physicians might increase social and regional inequalities in access to health care in the future.

In assessing performance, the Austrian health system provides good quality care. Low amenable mortality rates indicate that on this measure health care is more effective than in most EU countries. Yet, the number of people dying from cardiovascular diseases and cancer is high compared to the EU-28 average. Unhealthy life styles represent the major health risk factors, in particular tobacco and alcohol consumption, which have not declined over the last decade in contrast to most other EU countries and lie well above EU-28 average. In terms of quality of care, there is room for improvement of the effectiveness of cancer treatment (despite very good outcomes for certain cancer types) and equity in outcomes across socioeconomic groups and across *Länder*. The recently implemented Austrian Health Targets and the new target-based health governance system aim at monitoring and promoting

equity of outcomes and ensuring adequate health service provision based on the principles of equity, accessibility and quality of services.

In terms of efficiency, the Austrian health system is costly and characterized by high utilization of inpatient care, with a high number of hospital beds and hospitalization rates. In the course of the ongoing reforms, efficiency of inpatient care has improved through a gradual reduction of the average length of stay in hospitals. However, efficiency remains hampered by the separation of financing between the inpatient and ambulatory (extramural) sectors despite recent efforts for joint planning and financing, and strengthening of primary health care. Respective targets and priority areas to further improve the efficiency of hospital care are addressed through the ongoing reforms.

While Austrians are generally very satisfied with health care, challenges remain in terms of coordination between ambulatory and inpatient settings, and health and long-term care settings. In recent years, measures have been taken to increase transparency, accountability and patient empowerment (e.g. with the introduction of a public health portal and online health information platforms), although generally provider performance is not publicly reported.

■ 7.1 Stated objectives of the health system

The Austrian public social insurance system is based on the principles of solidarity and risk pooling, enshrined in the General Social Insurance Act (Allgemeines Sozialversicherungsgesetz, 1955, ASVG). Following these principles two major policy developments that aimed to improve population health and overcome the fragmentation of responsibilities and financing by promoting joint planning, decision-making and financing have shaped endeavours in the Austrian health care system in recent years. First, since 2011, 10 Austrian Health Targets (<https://gesundheitsziele-oesterreich.at/>) have been developed and approved in a broad participatory process. The health targets cover a broad range of health determinants, policy areas and population groups and aim at strengthening equity in outcomes, Health in All Policies and health literacy in the population with the overarching aim of increasing healthy life expectancy (Gruber, 2017). Specific national action plans and intersectoral strategies are linked to these targets (see sections 2.6 and 6.1.1).

Second, reforms under the new target-based health governance system (*Zielsteuerung-Gesundheit*) since 2013 also aimed to ensure adequate health

service provision based on the principles of equity, accessibility and quality and to improve coordination and policy coherence while leaving the constitutional division of powers and responsibilities unchanged. This reform framework sets out strategic goals in key areas – health outcomes, health processes and structures, health service provision as well as financial targets – and defines objectives together with measures for achieving them. The target-based health governance reforms are somewhat linked to the Austrian Health Targets as they are anchored in one of the targets (target 10) that aims to ensure high-quality and affordable health care for all (see section 6.1).

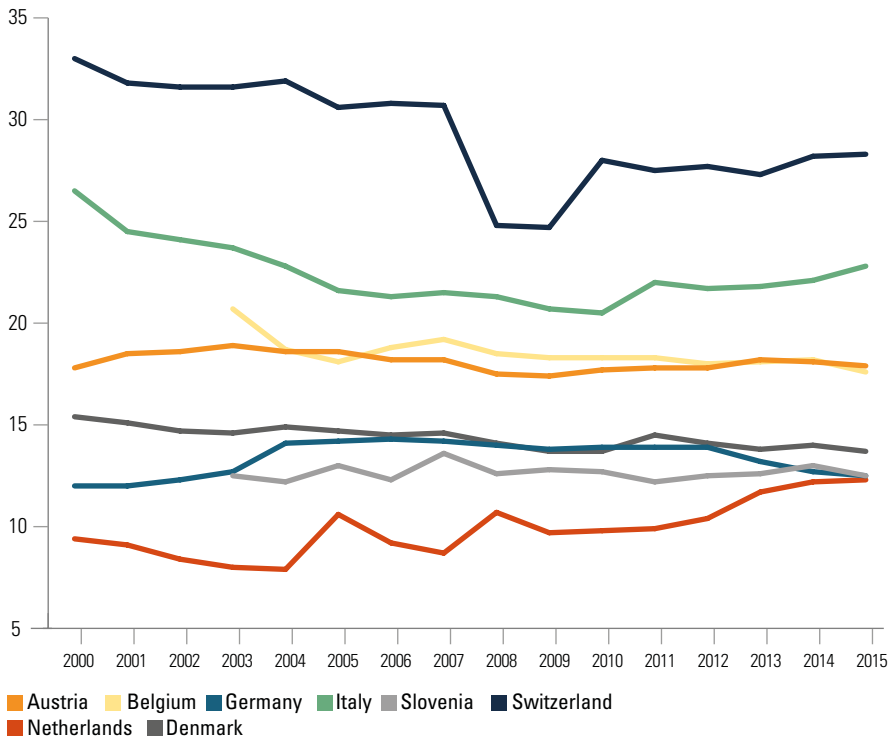
■ 7.2 Financial protection and equity in financing

■ 7.2.1 *Financial protection*

At 18% of current health expenditure in 2015, OOP payments in Austria were relatively high compared to other high-income countries in Europe such as Denmark (14%), Germany (13%) and the Netherlands (12%), as well as the EU average (15%), yet slightly below the OECD average (20%) (OECD, 2018b; OECD and European Observatory on Health Systems and Policies, 2017). Unlike other EU countries, the share of OOP payments has remained relatively stable in Austria since 2000 (Figure 7.1). The high OOP spending level also puts the Austrian OOP expenses at 3% of the average household budget, which was slightly higher than the EU-28 average of 2.3% in 2015. However, the proportion of households with very high OOP spending is low (3.2% in 2014/2015) (Czypionka et al., 2018), which indicates good financial protection relative to other European countries (EU-18 average 5.2%).

Cost-sharing for covered benefits applies to certain services. These payments represent approximately 12% of out-of-pocket (OOP) spending while by far the largest part refers to direct payments for benefits not covered by SHI (88%). OOP payments are mainly made for pharmaceuticals, long-term care, dental services, therapeutic aids and specialist physician services. As for pharmaceuticals, each patient has to pay a fixed fee per prescription. A means-tested exemption from this fee applies once total prescription fees exceed 2% of annual net income. Exemptions also apply for vulnerable groups, asylum seekers, and pensioners receiving a minimum pension (compensatory allowance) (see also section 3.4).

FIGURE 7.1 Share (%) of OOP payments of current health expenditure in Austria and selected countries 2000–2015



Source: OECD 2018b

Voluntary health insurance (VHI) mostly covers supplementary services such as extra amenities in the hospital sector and medical fees (of non-contracted physicians), medicines and medical aids in the ambulatory care sector (see section 3.5.1).

In the last three years, several measures have been taken to reduce out-of-pocket payments for families and children. Since 2015, SHI covers dental braces for children and adolescents under the age of 18 in cases of severely misaligned teeth (see section 3.3.1). Also, co-payments for children in hospitals were abolished in 2017. The supply of inpatient rehabilitation services for children was expanded in 2017 and financing was formally regulated between SHI funds and the *Länder*. Prior to that, children frequently had to use rehabilitation services in Germany (HVB, 2017d).

Nevertheless, co-payment levels on mental health services for children and adolescents remain high. A survey covering the period 2011–2014 found that carers of children and adolescents with mental health problems spent

a total of approximately €324 per patient out-of-pocket within 6 months, particularly on services for non-contracted child and adolescent psychiatrists (Zechmeister-Koss et al., 2016). Substantial socioeconomic differences were found, with families in higher socioeconomic groups spending significantly more OOP for mental health services (Zechmeister-Koss et al., 2016). This reflects existing barriers in access to care of non-contracted psychiatrists and in particular psychotherapeutic services that require substantial co-payments (see section 5.11).

■ 7.2.2 *Equity in financing*

SHI is the major source of financing in Austria, characterized by comprehensive risk pooling and wide-ranging support for socially disadvantaged groups. Compulsory contributions for SHI are largely harmonized across occupational groups and shared between employees and employers. There is a cap on the income used to determine contributions (HVB, 2017g). While this cap on contributions is regressive per se, it has been increased continuously in the past (Hofmarcher and Quentin, 2013). Income taxes, by contrast, are charged at progressive rates. They represent an important source of revenue for the health system, for instance for the financing of public health measures. Tobacco taxes are collected based on a mixed tax rate, with slightly more than three quarters of the retail price of cigarettes going to the federal budget (WHO, 2017b). Contributions for pensioners are partly deducted from pension income and partly covered by the pension insurance funds. The federal government covers contributions for the unemployed and asylum seekers, while contributions for people entitled to needs-based minimum income are covered by the *Länder* or the federal government (see sections 3.3.1 and 3.3.2).

Tax and SHI funding, as well as comprehensive SHI coverage for disadvantaged groups that do not pay contributions, result in redistribution in favour of those with poor health: 1% of the population with the poorest health conditions receive approximately 30% of total SHI benefits; the 5% least healthy receive 60% of transfers, while the healthiest 50% consumes a total of only 3% of total spending (Gönenç et al., 2011).

The automatic assignment of most people to a SHI fund by place of occupation and the limited risk adjustment across SHI funds in Austria result in horizontal inequalities across these funds in terms of services

covered, cost-sharing levels, and complementary and additional benefits (LSE Consulting 2017; Mossialos et al., 2006; Unterthurner, 2007) (see sections 3.3.1 and 3.4.1). Differing cost-sharing regulations may create disadvantages for patients covered by specialist insurance funds like civil servants, the self-employed, farmers, and miners and railway workers, compared to those covered by regional SHI funds under the ASVG. The international study of Austria's social insurance and health care system of 2017 (LSE Consulting, 2017) showcases options on how to harmonize cost-sharing levels and enhance risk pooling across SHI funds (HVB, 2017a). The programme of the current Conservative-led coalition government, which took office at the end of 2017, plans to continue ongoing efforts to harmonize benefits (see section 3.4). In addition, they plan to merge the nine regional SHI funds to one single Austrian SHI fund (*Österreichische Gesundheitskasse*), which would cover almost 80% of the insured population and ultimately reduce the SHI funds from 18 to five (BKA, 2018b).

Evidence on the socioeconomic distributive effects of OOP payments is inconclusive. A study analysing OOP payments based on data from 2009/2010 found that OOP spending particularly for prescription fees and therapeutic aids increase income inequalities (Sanwald and Theurl, 2015). At the same time evidence suggests that households with higher income and adult education level have higher probability and level of private payments for dental care services and for over-the-counter (OTC) pharmaceuticals (Sanwald and Theurl 2016; 2017).

■ 7.3 User experience and equity of access to health care

■ 7.3.1 *User experience*

The Austrian health care system enjoys widespread approval in the population. According to a national survey among 20 234 patients in 2014, 95% of patients reported being satisfied or very satisfied with inpatient care received while 98% of patients were satisfied or very satisfied with ambulatory (extra-mural) care (Leuprecht et al., 2016b). According to a survey in 2016, at least 95% of 3 478 respondents indicated being satisfied or very satisfied with independently practising physicians, in particular with gynaecologists, GPs

and other specialists, while satisfaction was lowest with hospital outpatient departments (10% of people reporting being dissatisfied or very dissatisfied). However, patients were less satisfied with collaborations between GPs and specialists and the quality of doctor–patient communication. Only 68% and 63% of respondents, respectively, evaluated collaboration and doctor–patient communication as good or very good, pointing to scope for improvement (TQS and HVSVT, 2016). A more recent survey identified reduction of co-payments as the most important aspect patients would like to see changed (GfK, 2017).

In international surveys, Austria also fares relatively well in terms of user experience. In the 2013 Eurobarometer survey, quality of care was assessed as good by 96% of respondents, a figure that has remained stable since 2009 and was only exceeded by Belgium (97%). Perception of the health system's quality dropped only slightly compared to other countries (European Commission, 2013b).

However, health literacy levels in the Austrian population are low according to the European Health Literacy Survey (HLS-EU), with only 43.6% of people displaying excellent or sufficient health literacy, compared to 52.5% on average across eight countries surveyed (with the Netherlands faring best with 71.4%). Women and young people with higher education or higher self-assessed social status tended to have significantly higher health literacy levels, while financial deprivation, low self-assessed health, health limitations and having one parent or two parents from another EU country were associated with lower levels of health literacy (HLS-EU Consortium, 2012).

Waiting times for and opening times of ambulatory (extramural) specialists are a main concern for many patients in Austria especially for radiological examination. Almost one third of the patients visiting a radiologist had to wait for an appointment for one month or longer, in particular for computer tomography (CT) and magnetic resonance imaging (MRI) examinations (GfK, 2017). Recent reform efforts aim at increasing transparency with regard to waiting times and at prioritizing urgent cases at radiology outpatient clinics. Since 2018, outpatient clinics are obliged to reduce waiting times to a maximum of 10 days for CT examinations, and to a maximum of 20 days for MRI examinations (HVB, 2018c). While the majority of patients receive a GP appointment within the same day, 9% of patients discharged from hospital wished for changed opening times among ambulatory (extramural) providers (Leuprecht et al., 2016a).

Care coordination between providers is a source of criticism in the

Austrian health care system, specifically concerning coordination between ambulatory (extramural) and inpatient care, between the health care and the long-term care sectors, and discharge management by hospitals.

In a large-scale patient survey carried out in 2015, almost one out of 10 patients reported that the hospital had no information about previous examination results and electronic health records at the time of admission, and 17% reported that important information about previous health records had not been communicated between different care providers (Leuprecht et al., 2016a). Examinations carried out shortly before the hospital stay had been repeated in hospital for more than one fifth of the patients surveyed. In addition, more than one third (36%) indicated that there was no health professional in charge of discharge management and post-acute care coordination and almost every other patient (49%) reported the need for a discharge manager (Leuprecht et al., 2016a; 2016b). Overall, 17% of the patients reported that they had received contradictory information from different providers (Leuprecht et al., 2016b).

In order to improve discharge management and admission procedures, a national quality guideline on admission- and discharge management was published in 2012 (BIQG/BMG, 2012) and is currently under revision. In 2014, an evaluation showed that five out of nine *Länder* had implemented measures to facilitate discharge management or ran related projects. Yet, some *Länder* had no person in charge to implement the guideline.

■ 7.3.2 Equity of access to health care

In Austria, virtually all of the resident population is covered by SHI (99.9%). Yet, some groups remain uninsured, e.g. the unemployed without entitlement to unemployment benefits, part-time employees earning less than €438.05 per month (2018), people no longer co-insured with their partner (e.g. due to divorce) or relatives (e.g. exceeding the age limit of 18 years or 27 years if in full-time education and earning less than €438.05 per month), or people without a residence permit (e.g. irregular migrants) (BKA, 2018a; Zechmeister-Koss, 2012). These uninsured people mainly rely on medical support from non-profit organizations such as *neunerhaus*, *AmberMed*, or *Louise-Bus Caritas*, and from the *Hospital of St. John of God* in Vienna (run by the religious order *Barmherzige Brüder*), to name only a few (see sections 3.3.1 and 5.1.4).

All insured persons are entitled to the same benefit package irrespective of the contribution level or the duration of insurance coverage. There are differences between SHI funds in terms of the range of services covered and cost-sharing (see above). Since 2011, all recipients of the needs-based minimum income have had access to SHI services via the electronic health insurance card (e-card), to the benefit of vulnerable groups such as asylum seekers and people entitled to needs-based minimum income. However, it is important to mention that cost-sharing regulations for recipients of the needs-based minimum income, including asylum seekers and their families, also differ across *Länder* (see section 3.3.1) (Die Armutskonferenz, 2012).

Compared to other European countries, Austria stands out with regard to the low share of people reporting unmet needs for medical care, with almost no difference between income groups (OECD and European Observatory on Health Systems and Policies, 2017). However, there is evidence that waiting times for treatments in hospitals differ significantly between patients with and without supplementary VHI (see for instance Czypionka, et al., 2013). Also after hospital discharge patients with VHI reported slightly shorter waiting times at ambulatory (extramural) providers than patients without VHI: 74% of patients with VHI received an appointment within seven days while only 67% of patients without VHI reported the same waiting time (Leuprecht et al., 2016a).

The increasing share of non-contracted physicians and stagnating number of contracted physicians, particularly among specialists and GPs, is a major reason for concern in the Austrian health system, jeopardizing the principles of equity of access to ambulatory (extramural) care. Currently, the numbers of ambulatory (extramural) specialists with SHI contracts are disproportionately concentrated in urban regions, particularly among neurologists, psychiatrists and radiologists. Disparities in the density of contracted specialists also exist across *Länder*. These regional imbalances might be further compounded by the age structure of this group of doctors. Almost six out of 10 contracted ambulatory (extramural) physicians are currently aged 55 years or older (in 2015) (see sections 4.2.1 and 4.2.3) (OECD and European Observatory on Health Systems and Policies 2017). The ageing of contracted physicians might also lead to unequal access across income groups as fees of GPs and specialists without a SHI contract are largely unregulated and only partly covered by SHI. Therefore, less affluent patients might be unable to afford private payments or VHI payments covering the fees of non-contracted physicians. Evidence from

2014 indicates that people with at least a high school diploma tend to visit ambulatory (extramural) specialists more than people with only compulsory education (or less), with the differences most pronounced among men and people aged 60 and older. People with compulsory education level (or less) tend to visit GPs more frequently than Austrians with at least a high school diploma. However, this bias in terms of use of GPs and specialist physicians might lead to inequities in the access to primary care given the stagnating numbers of contracted GPs in Austria (Griebler et al., 2017).

In addition, despite the recent reforms of the nursing profession Austria may face a lack of nurses and assistant nurses in the future (see section 4.2.3) (Rappold et al., 2017; Zsifkovits et al., 2013). In long-term care, access to home care services is also unequally distributed across the *Länder* (Österle and Bauer, 2012). However, a European study found limited evidence of income-based differences in access to home care (Rodrigues et al., 2017).

■ 7.4 Health outcomes, health service outcomes and quality of care

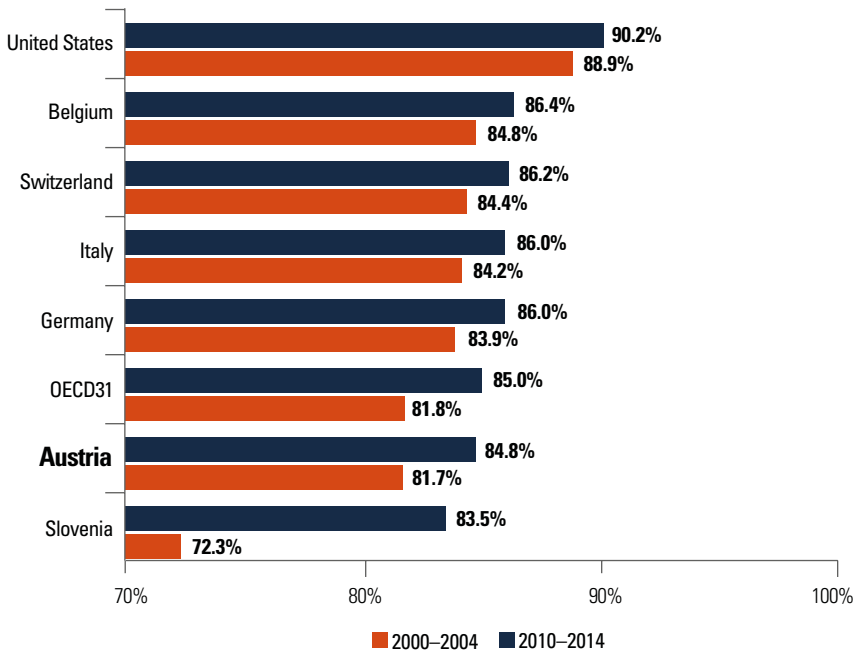
■ 7.4.1 Population health

Life expectancy at birth in Austria is increasing. At 81.3 years it remains above the EU average (80.6 years), but it is lower than the countries with the highest life expectancy in 2015 (83.0 years in Spain and 82.7 years in Italy) (OECD, 2017e). Between 2000 and 2015 the general positive trend in life expectancy was somewhat less pronounced in Austria with an increase of 3 years compared to the overall increase in the EU (3.3 years) (OECD and European Observatory on Health Systems and Policies, 2017). In terms of healthy life years, the prospects for healthy, problem-free life years are below the international average, indicating room for improvement. With 58.1 years for women and 57.9 years for men, the number of healthy life years at birth was below the EU-28 average in 2015 (63.3 years for women and 62.6 years for men). A negative trend has been observed for women, whose healthy life expectancy decreased by 2 years between 2005 and 2015 (Eurostat, 2017d) (see Table 1.4). Considering infant mortality Austria records levels that were below the EU-28 average in 2015 (3.1 deaths per 1000 live births versus 3.6 per 1 000 live births) (Eurostat, 2018e).

More than two thirds of deaths are caused by cardiovascular diseases (47% for women, 38% for men) and cancer (24% for women, 29% for men). Diabetes is one of the most increasing causes of deaths. While it ranked the tenth leading cause of death in 2000, it was the fifth leading cause of death in 2014 (OECD and European Observatory on Health Systems and Policies, 2017) (see section 1.4).

Amenable mortality refers to deaths that could have been avoided if people had had access to timely and effective health care. With 109 deaths per 100 000 population (age-standardized), Austria recorded amenable mortality rates that were significantly lower than the EU-28 average (126 deaths) but these are higher compared to the best performing countries in the EU in 2014. With 302 deaths per 100 000 population, mortality from cardiovascular diseases was above the OECD-35 average (282) in 2014 while cancer mortality is slightly below the OECD-31 average (197 versus 204 deaths per 100 000 population) (OECD, 2017b; OECD, 2018d). The 5-year net survival rate for breast cancer increased slightly since 2000–2004 and was slightly below (84.8%) the OECD-31 average (85.0%) for the period 2010–2014 (see Figure 7.2). In 2012, the breast cancer incidence rate was with 68.0 per 100 000

FIGURE 7.2 Breast cancer survival rates in Austria and selected countries, 2000–2004 and 2010–2014



Source: (OECD 2017b)

population also below the OECD-34 average of 74.2 (age-standardized) (OECD, 2017b). The breast cancer screening programme implemented in 2014 aims to improve breast cancer survival (<http://www.frueh-erkennen.at/>).

Unhealthy life styles are important challenges for the Austrian health system. This refers particularly to tobacco and alcohol consumption, for which Austrian indicators are well above EU-28 average. Some 24% of Austrian adults reported daily smoking in 2014, which is more than three percentage points above the EU-28 average, and there is no downward trend as in most other EU Member States. In fact, smoking prevalence has been stagnating since 1997 in Austria. Unlike many other EU countries, Austria has not yet enacted a ban on smoking in restaurants and bars. With a yearly consumption of 12.3 litres of pure alcohol per capita, Austria has the third highest rate of alcohol consumption in the EU (more than 2.0 litres above the EU average). Although, obesity rates (14.3% of adults) were 1 percentage point below the EU-28 average in 2014, obesity is on the rise. For example, the share of obese men doubled from 8.0% to 16.0% during 1991–2014 (see Table 1.6). Overall, behavioural risk factors (including tobacco and alcohol consumption, as well as unhealthy diet and low physical activity) are estimated to cause 28% of the overall burden of disease in 2015, which is slightly below the EU-28 average of 29%. This overall result reflects the fact that prevalence of overweight and obesity among adults and adolescents is below the EU-28 average and Austrian adults are among the most physically active in the EU (IHME, 2017) (see section 1.4).

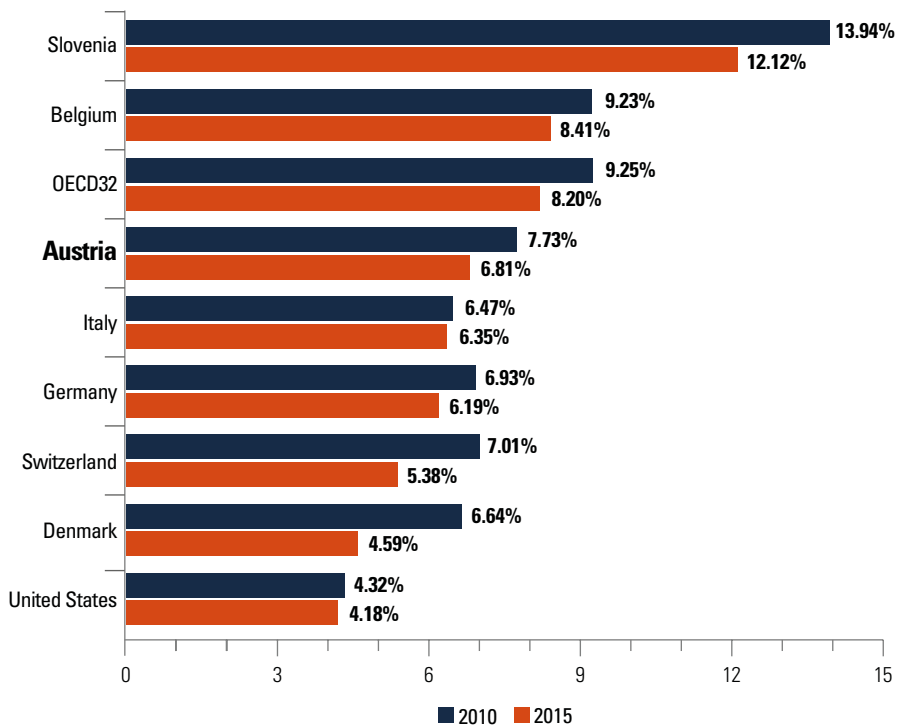
■ **7.4.2** *Health service outcomes and quality of care*

The relatively low amenable mortality rates indicate fast and effective treatment of people requiring acute care. Austria reports a rising and higher share of patients surviving stroke than most other EU countries. However, there is some scope for improvement in acute care for people admitted for a heart attack (AMI). In 2015, the in-hospital case fatality rates after AMI in Austria (7.4 deaths per 100 hospital discharges) were slightly above the EU average of 6.8. The case fatality rate following ischaemic stroke (6.8 deaths per 100 discharges) has decreased and was below the EU average (8.5) and OECD-32 average (8.2) in 2015 (Figure 7.3) (OECD and European Observatory on Health Systems and Policies, 2017).

As part of the ongoing health reform, an outcome measurement framework was developed by an expert panel in 2015 for the systematic monitoring of the health system performance, which provides a regular update on outcome indicators. Currently, the framework comprises 38 indicators (Bachner et al., 2015). Indicators on postoperative complications are included in the framework, but data are currently not collected.

With regard to patient safety, the prevalence of potentially inadequate medication among people aged 70 and older was 52% in 2012, which is high by international comparison – for instance compared to Germany (22 % in 2010) and Switzerland (23 % among people aged 65 and older in 2012) (Bachner et al., 2018b). However, the defined daily doses of prescribed antibiotics in 2014 (14.0 antibiotics per 1 000 population per day) was below the OECD-30 average (20.6) (OECD, 2017a). Overall, assessment of patient safety is hampered by availability of data on patient safety indicators. In particular, data collection on patient-reported outcome indicators (PROMs) or patient-reported experience measures (PREMs) is currently not performed and also not envisaged in the current health care reform efforts.

FIGURE 7.3 Thirty-day mortality after admission to hospital for ischaemic stroke per 100 patients aged 45 years and above in Austria and selected countries, 2010 and 2015



Note: based on unlinked data
Source: OECD, 2017b

Evidence on the quality of preventive care is mixed. Screening rates for breast cancer lie well above the EU average. Yet, 5-year net survival rates were slightly below the OECD-31 average (see above, Figure 7.2). Austria also fares well with regard to cervical cancer screening. Nearly nine out of 10 women aged 20–69 were screened within the past 3 years – one of the highest rates among EU countries. In addition, free vaccinations against the human papillomavirus to prevent cervical cancer were added to the publicly financed school immunization programme in 2014. Also age-standardized mortality from colorectal cancer (20.6 cases per 100 000 inhabitants) was significantly below the OECD average (23.9) in 2015 (OECD, 2017b).

At the same time, vaccination rates for children are below international standards, despite established childhood vaccination programmes. With 309 measles cases in 2015, Austria reported the second highest measles rate in the EU, corresponding to 35.3 cases per million inhabitants (BMGF, 2017o), compared to 8.3 cases per million inhabitants in the EU (WHO, 2017c). The rate of influenza vaccination for older people (20.3%) was also below the average vaccination rate at EU level (34.6%) in 2014 (Eurostat, 2018f). Gaps in systematic documentation remain a major reason for concern (see section 5.1.3).

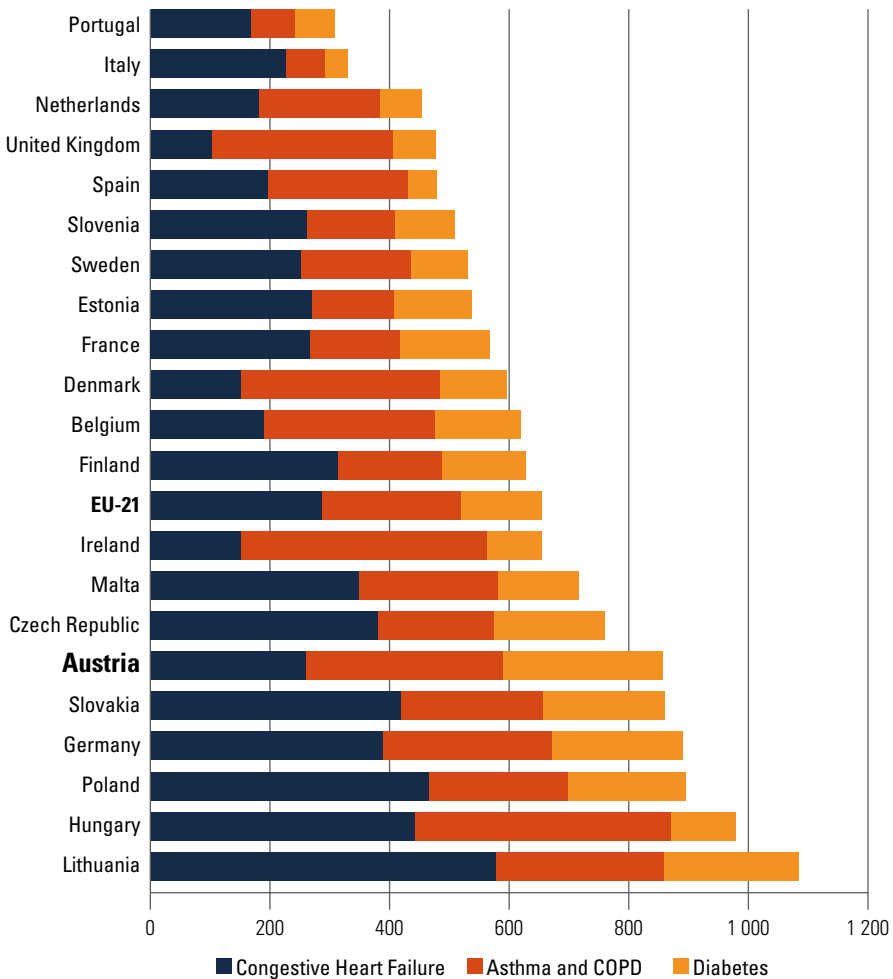
Finally, Austria ranked among the countries with the highest hospital admission rates for chronic diseases that are considered avoidable among OECD countries in 2015, including asthma and chronic obstructive pulmonary disease (COPD) and diabetes (Figure 7.4). Such chronic conditions can normally be managed effectively in primary health care settings without requiring hospital admission. Although hospital admission rates for both conditions have already started to decrease in recent years, it points to the need to further strengthen primary health care, which is one of the main objectives of the ongoing health care reforms (see Chapter 6).

■ 7.4.3 *Equity in outcomes*

In Austria, there are differences in health outcomes across geographical regions and socioeconomic groups. In particular, there is a gradient from west to east, with better health outcomes in the west. For instance, life expectancy at birth for men ranges from 80.2 years in Salzburg to 78.3 years in Vienna (Fülöp 2008; Statistics Austria, 2017l). With healthy life expectancy at birth of 71.6 years, women living in Tyrol are expected to spend almost 10 years

longer in good health compared to women in Burgenland (Klimont and Klotz, 2016). This pattern also applies to health risk factors. The share of the obese population ranges from 9.6% in Salzburg to 19.3% in Burgenland. Vienna reports the highest share of daily smokers (32.6% versus the Austrian average of 24.3%) (Statistics Austria, 2014).

FIGURE 7.4 Avoidable hospital admissions rates for asthma and COPD, congestive health failure and diabetes (2015 or nearest year). Age-sex standardized rate per 100 000 population, 15 years old and over



Notes: Data on congestive heart failure, asthma and COPD refer to 2014 for Belgium, to 2013 for Malta, and to 2012 for Hungary and the Netherlands. Data on Diabetes refer to 2014 for Austria, Belgium, Lithuania, Slovenia and Spain, to 2013 for Malta, and to 2012 for Hungary and the Netherlands.

Source: (OECD 2017)

Inequality in outcomes across different socioeconomic groups have been observed as well (see section 1.4). In terms of education, life expectancy at birth for men differed by 6.8 years between men with compulsory education as their highest level of schooling (76.5 years) and men with tertiary education (83.3 years) in 2014 (Eurostat, 2018d). For Austrian women, the corresponding gap was only 2.8 years. Inequalities in self-perceived health status along the income distribution are more significant than the EU-28 average. While 81% of the population in the highest income quintile reported to be in good or very good health (EU-28 78%) the corresponding share of the population in the lowest income quintile was only 59% (EU-28 60%) (Eurostat, 2018c).

■ 7.5 Health system efficiency

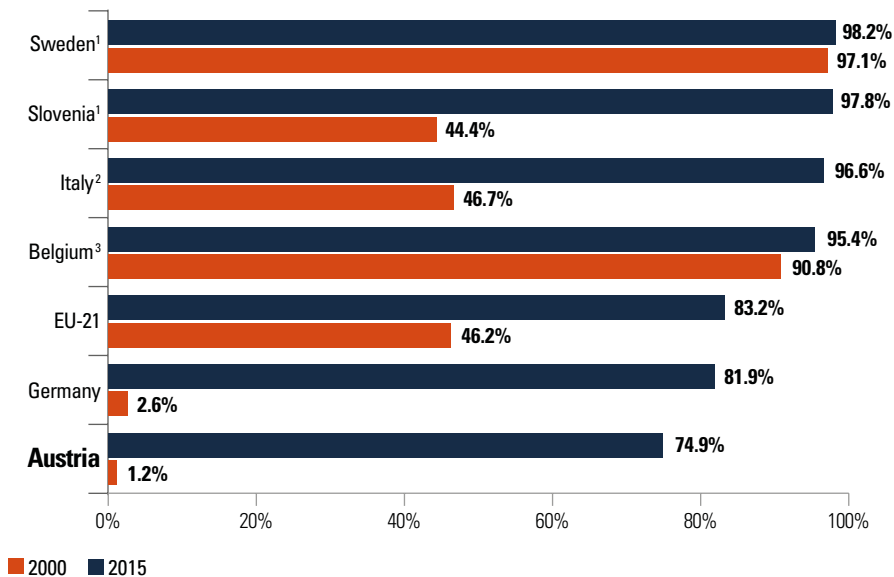
■ 7.5.1 *Allocative efficiency*

Together with Germany, Austria has the highest levels of hospital activity in the EU. Hospitals account for 38.7% of current health expenditure, while the ambulatory (extramural) sector accounts for 22% (see Table 3.2). The corresponding shares have remained stable throughout the last decade (OECD, 2017m). High spending for inpatient care is related to the high number of hospital beds and hospitalization rates per inhabitant, which are also among the highest in the EU (Figure 4.2) (WHO, 2017c). For instance, the number of knee replacements is the highest in the EU and the number of hip replacements the second highest. A strategic goal of the ongoing second Federal Target-Based Governance Agreement is to reduce overutilization of the inpatient sector, optimizing resource allocation and strengthening of primary health care (see section 6.1.4).

The imbalance in allocation of resources is also reflected in high avoidable hospital admission rates for chronic conditions (see Figure 7.4). This points to scope for efficiency gains. These could be achieved by shifting activities out of the costly hospital sector to the less expensive ambulatory (extramural) care setting. Since 2000, the share of cataract surgeries carried out as day cases in Austria increased considerably but remains below those of most other EU countries in 2015 (Figure 7.5). In contrast, tonsillectomies are still exclusively performed in inpatient

settings in Austria, whereas 22 European countries for which data are available performed, on average, only one third of tonsillectomies as out-patient cases in 2015 (Eurostat, 2018b). In particular, the separation of the financing system between ambulatory (extramural) and inpatient sector and the *Länder*, which own and run most of the public hospitals, creates few incentives to increase efficiency in the hospital sector or to move services to ambulatory care.

FIGURE 7.5 Share of cataract surgeries carried out as day cases, 2000 and 2015 (or nearest year)



Notes: EU-21 refers to the unweighted average, ¹ values refer to 2005 and 2015 (Sweden and Slovenia), ² values refer to 2001 and 2009 (Italy), and ³ values refer to 2005 and 2014 (Belgium), respectively.

Source: (OECD 2017n)

According to a recent efficiency review of Austria's social insurance system, scope for efficiency gains exists in regard to risk adjustment mechanisms and the silo-based purchasing of health care services between SHI funds (ambulatory care) and the *Länder* (inpatient care). Risk adjustment is limited in terms of number of purchasers and resources used for risk pooling (LSE Consulting, 2017). Only 57% of the revenue of SHI funds are risk-adjusted via the Interregional Equalization Fund, based on distribution of age, gender, income and intensive users among the insured. Another 33% of the revenue of SHI funds are used to compensate for liquidity imbalances and

10% are used to finance special demands (HVB, 2006a). In addition, since 2010 the Health Insurance Structural Fund distributes funds to illiquid SHI funds when specific financial criteria are met. With limited risk adjustment and mechanisms that compensate illiquidity of insurances funds, there is a lack of incentives for SHI funds to operate efficiently and purchase an appropriate mix of services.

For hospital (inpatient) care mainly funded by the federal government and the *Länder*, the fiscal equalization system is mainly based on negotiations rather than a risk or needs-based allocation formula. The Federal Health Agency (BGA) pools earmarked and fixed shares of tax revenues and distributes them to the state health funds (LGF). Before distribution to the LGF, the BGA compensates for regional particularities via a lump sum (e.g. patients seeking care in one of the other *Länder*), or to adjust for socioeconomic differences. Finally, the Financial Equalization Act regulates pooling and intergovernmental transfers of direct and indirect taxes between the federal and the regional levels (*Länder* and municipalities). Distribution of funds and corresponding ratios are also regulated in so-called Agreements under Article 15a of the Federal Constitutional Law (*Vereinbarungen gemäß Artikel 15a Bundes-Verfassungsgesetz*), which are also subject to negotiations between the federal and the *Länder* level (see also section 3.3.3).

First steps towards appropriate resource allocation and budgetary systems, as well as means for priority-setting have been developed in the two reform periods of 2013–2016 and 2017–2021, representing a novelty in the Austrian context. In the first reform period (2013–2016), key areas were identified and a comprehensive monitoring process (including financial targets) was implemented. In the second reform period (2017–2021), strategic goals were adjusted building on the experiences, priorities and guiding principles of the first health reform period (section 6.1.4). However, a comprehensive framework for needs-based resource allocation and programme budgeting that replaces historical budgets still needs to be developed.

■ 7.5.2 Technical efficiency

Despite the decline of the average length of stay (by 5.8%, 2006–2015) and the bed-to-population ratio (by 12.5%, 2007–2016) in the acute hospital sector, Austria still ranks among the highest in the OECD on both indicators

(OECD, 2018c). At the same time, bed occupancy rates in Austrian hospitals in 2015 (74.3%) were below the EU-22 average (76.5%) and slightly declined since 2006 (by 4.7%) (see also Tables 4.2 and 4.3, Figures 4.2 and 4.4). These indicators as well as the low share of ambulatory cases for certain interventions largely explain Austria's relatively high spending on health (10.2% of GDP) and inpatient care (38.7% of current health expenditure) (Tables 3.1 and 3.2) and indicate potential for further efficiency improvement in the hospital sector. At the same time, regional variation, for instance in bed capacity, remains a source of concern (Hofmarcher and Quentin, 2013).

While Austria has the second highest number of practising physicians (5.1 doctors per 1 000 inhabitants) (WHO, 2017c), the number of nurses is below the OECD average (OECD, 2017o). As part of efforts to address existing imbalances across regions and professions in the health care workforce, a national registry of health professions is being set up as of mid-2018. This registry complements the systematic registry of physicians, run by the Austrian Medical Chamber.

There is currently no comprehensive systematic planning mechanism in place that estimates the current unmet demands and future need to better steer the supply of health professionals. There is planning for the number of first year students at public medical universities and national target numbers of training places for GPs. But in light of imminent shortages of health care staff in the future more comprehensive measures will be needed. The current reform package includes the monitoring of staff indicators, such as the number of training positions (see Table 6.3).

Even though Austria lies well above the OECD average in terms of per capita spending on pharmaceuticals (US\$621 purchasing power parity (PPP) versus US\$553 PPP; OECD-31), the share of pharmaceutical expenditure of total health expenditure is below the OECD average (12.4% in 2015 compared 15.7% OECD-30) (OECD, 2017b; OECD, 2017m). In Austria, there are no regulations in place to encourage or incentivize the use of generic medicines, such as reference pricing systems, generics substitution or generic prescription (Vogler et al., 2017; Zimmermann and Rainer, 2018), leading to low generic shares of pharmaceutical sales both in volume and value (see section 5.6.2). No specific assessment of prescribing behaviour of GPs is in place with regard to specific medication (e.g. anticoagulant therapy, statin use, antibiotic prescribing), while potentially inappropriate prescribing of medicines is being monitored in the course of the new target-based health

governance system. Adherence to cost–effectiveness guidelines is assessed by SHI funds, but no official reporting of activities is required (see section 2.8.4).

■ 7.6 Transparency and accountability

Overall, the Austrian health system features an elaborate framework of public accountability. Accountability and transparency through public monitoring are underlying principles of the recent health reforms 2013 and 2017. The Austrian Health Targets and the target-based health governance system are accompanied by a transparent and comprehensive monitoring process that regularly evaluates the achievement of the defined health targets, operative and expenditure goals (see section 6.1). Additionally, an outcome measurement framework was developed, which supports the systematic monitoring of health system performance. Currently, 38 indicators have been defined, for which results were published in 2015, 2016 and 2018 (Bachner et al., 2015; Bachner et al., 2016; Bachner et al., 2018b). However, the health reform reports were overloaded with technical details, particularly in the first reform period (2013–2016), e.g. in regard to the analysis of the completion of 107 reform measures, often with subsections at federal and at *Länder* levels (Ostermann, 2017). It remains to be seen whether the approach towards monitoring of health service provision in the second period of the health reform (2017–2021) will provide better feedback both in public and internal terms.

Public participation in the decision-making process takes place mainly indirectly, for instance via stakeholder representatives. In 2011 and 2012, the 10 Austrian Health Targets were developed through a broad participatory process, which served as a blueprint for broad stakeholder involvement. Stakeholders were involved in various expert groups and committees, and via online participation. The current health reform approach also ensures involvement of all financing agents and major stakeholders (Chapter 6). Working committees under the standing high-level committee (*Ständiger Koordinierungsausschuss*) convene at regular intervals. Meetings of the working committees and the Federal Target-Based Governance Commission (*Bundes-Zielsteuerungskommission*) are, however, open to delegated members only.

The level of transparency of the Austrian health system is heterogeneous. On the one hand, public reporting of provider performance in both health care and long-term care is still rare (Kumpunen et al., 2014; Rodrigues et

al., 2014). According to Transparency International, the Austrian health care system is prone to overspending or even misconduct (e.g. corruption) due to the complex nature of its organizational and financing structure. High standards of transparency may contribute to improving this situation (Transparency International, 2018b), such as measures that aim to reduce informal payments in the health care sector (section 3.4.3). The implementation of the General Data Protection Regulation at EU level (Regulation 2016/679/EU) that will also apply to health service providers (e.g. hospitals) may serve as a trigger to step up efforts for increased transparency (Transparency International, 2018a).

On the other hand, the establishment of central service documentation and patient information portals and the ongoing health reform have achieved substantial progress in terms of transparency over the past few decades. The opening of the public reporting portal *Kliniksuche.at* in 2016 was a major step towards improved transparency on hospital performance. Besides data for selected procedures, it provides information on quality management processes for all hospitals in Austria based on the A-IQI data. In addition, an A-IQI report is published every year with indicators (at the national level) and results of peer-review-processes as well as a description of the national measures developed and implemented based on A-IQI results (see section 2.8.2).

Important steps were also made in the promotion of patient empowerment. Different reliable online health information platforms provide structured information on providers and health-related issues. Since the beginning of 2015, patients can access electronic health records via the ELGA (Electronic Health Record) online portal, which serves as an individual document repository at the patient level. Finally, the public health portal *gesundheit.gv.at* includes comprehensive peer-reviewed information on lifestyles, diseases and therapies as well as on health system governance, patient rights and service claims (section 4.1.4).

To date, there has been no general and formal process for HTA, which applies to all sectors of the health care system, although for some products and services specific provisions on HTA are in place (e.g. reimbursement of pharmaceuticals used in ambulatory (extramural) care; reimbursement of services provided in hospitals). Yet, the question of when HTA procedures are launched remains largely non-transparent for the general public. In 2015, the Austrian HTA strategy was evaluated (Busse and Panteli, 2015). Based on the results, three major stakeholder groups (SHI, the Federal Ministry of

Labour, Social Affairs, Health and Consumer Protection (BMASGK), the *Länder*), together with experts from the Austrian Public Health Institute and the Ludwig Boltzmann Institute for HTA, will decide on the next steps in the context of the ongoing national reform process (second Federal Target-Based Governance Agreement).

Various health reform efforts over the past decades have also contributed to increased transparency and accountability, either as their primary purpose or as a by-product. The introduction of the DRG-based hospital financing scheme in 1997 brought about central documentation of routine data, which is now also used for quality assurance via the Austrian Inpatient Quality Indicator system (A-IQI) (see section 2.7). Likewise, the introduction of the e-card in 2004 allowed for systematic data collection on service use at the level of SHI funds, facilitating, for instance, the systematic evaluation of ambulatory (extramural) physician behaviour. The amendment to the Federal Hospital Act in 2011 aimed to increase transparency of waiting times for elective surgery and invasive diagnostics. In particular, it regulates waiting list management based on defined criteria in ophthalmology, orthopaedics and neurosurgery (Gesundheitsberuferegister-Gesetz, 2016). Independent of federal legislation, there are also efforts aiming to improve transparency of waiting lists in some regions, e.g. through computerized registration systems (Czypionka et al., 2007; European Commission, 2013a). Additionally, the Penal Code Reform 2008, the Anti-Corruption Law amendment in 2009 and the establishment of the Office for Prosecution of Corruption and the Federal Bureau of Anti-Corruption may be considered first steps towards increased transparency (European Commission, 2013a).

Information on health expenditure is published at an aggregated level according to the system of health accounts (SHA) via the web portal of Statistics Austria. In addition, defined health expenditure blocks for monitoring financial targets, i.e. a subset of SHA-figures covering approximately 90% of public health expenditure, are published twice a year and also cover budget forecasts. The latter reports, along with the monitoring reports of health service provision targets, are submitted to the parliamentary committee on health affairs (Austrian Parliament, 2013). SHI funds are also required to conduct a quarterly accounting forecast and report it to the BMASGK. As for all EU Member States, health expenditure and its projection, as well as reform efforts, are regularly assessed by the European Commission in line with the European Semester.

8

Conclusions

Overall, Austrians are quite satisfied with the quality of care when compared to the average in EU-28 countries. Life expectancy at birth is above the EU average and low amenable mortality rates indicate that health care is more effective than in most EU countries. However, Austria still lags behind the best performing countries on these indicators, in particular healthy life years remain below the EU average. Over 28% of the overall burden of disease in Austria could be attributed to behavioural risk factors including smoking and alcohol use, as well as diet and low physical activity. Obesity rates are on the rise for both adults and adolescents although they are still lower than in many other EU countries. Little progress has been made in reducing the relatively high alcohol consumption rate. Moreover, in contrast to a marked decline in many EU countries, smoking rates in Austria have not decreased and remain among the highest across the EU (this is associated with the comparatively weak smoking policy in Austria).

By international comparisons, the Austrian health system has a generous benefit basket, good financial protection and access to health services, as shown by the low level of unmet need and high satisfaction levels in the population, despite relatively high out-of-pocket payments. The health system provides near universal insurance coverage (99.9% of the population) and comprehensive financial protection for vulnerable groups through numerous exemptions from cost-sharing requirements. Access to service providers is almost unrestricted, with no formal gatekeeping in place. However, a large share of out-of-pocket expenditure stems from payments for non-contracted care that play an increasingly important role in the provision of ambulatory care.

There are several challenges that continue to be addressed in the years ahead. The Austrian health system is among the most expensive in the EU. A large and increasing share of government spending is dedicated to health (15.6%), which is expected to increase further over the coming decades as a result of population ageing. At the same time, the Austrian health system is characterized by a complex structure with shared governance between the federal and the regional levels and many responsibilities delegated to self-governing bodies (of social insurance and providers), which ultimately results in fragmentation and inefficiencies. In particular, responsibilities for financing and service provision are split between federal and *Länder* governments for inpatient care and SHI for ambulatory (extramural) care. There is also fragmentation between the health care and the long-term care sectors, where an integrated vision is still needed.

The fragmentation of financing responsibilities between the inpatient and ambulatory sector causes inefficiencies, particularly in the hospital sector. The country spends one of the largest shares of the health budget on hospital care (38.7% in 2015) among EU countries. Despite recent efforts for strengthening primary health care and reductions of the number of hospital beds, the bed-per-population and the hospital discharge rates in Austria remain among highest in the EU. They point towards scope for efficiency improvements, for example by shifting activities and resources out of the large and costly hospital sector.

Numerous reform attempts have aimed at reducing the fragmentation between inpatient and ambulatory care and improving cooperation and coordination in the health care system. In particular, the two major health care reforms in the periods 2013–2017 and 2017–2021 have put in place a target-based health governance system through a contractual agreement between the federal government, state governments and the SHI funds. The primary aim of the reforms was to achieve a larger degree of joint planning, joint governance, and joint financing, with the Federal Target-Based Commission (B-ZK) as the most important actor tasked with implementing the new governance system while leaving the constitutional division of powers and responsibilities unchanged. In this process, the key players jointly defined financial and health targets together with measures for achieving them. Despite these efforts for joint planning and governance, a high level of fragmentation in the organizational and financial structure remains, and structural change

envisaged by the reforms are occurring incrementally rather than in a transformative manner.

The ongoing health care reforms also focus on rising public health expenditure which poses a risk to the fiscal sustainability of the Austrian health system. Average expenditure growth in the health care sector has been consistently higher than GDP growth since 2012. To contain public spending on health, the first Federal Target-Based Governance Agreement concluded in 2013 introduced a global budget cap for federal, sectoral and regional health budgets aligned with GDP growth, which was further extended throughout the 2017 health reform package. This containment path, combined with a cooperative monitoring mechanism and a shift of activities and resources to less costly settings, may contribute to attenuate the strong focus on hospital inpatient care.

One of the most important reform elements with regard to health care structures was the development of a new concept for the provision of primary health care, which ultimately led to the adaptation of the Primary Health Care Act (2017). It provides the legal framework for the establishment of primary health care units of which 75 are planned by 2021. Strengthening primary health care will also remain an important focus of health policy in the near future. Conditions for physicians working in primary health care need to be improved to attract sufficient physicians willing to work independently under a SHI contract. A strong primary health care sector may also contribute to reducing avoidable hospital admissions. The creation of primary health care units, consisting of multi-professional and interdisciplinary teams, is one important step in strengthening primary health care and reducing the over-reliance on hospitals. At the same time, the supply of health professionals, in particular the increasing share of physicians without a SHI contract and the stagnating numbers of physicians with SHI contracts pose a challenge to equal access and unrestricted provider choice across income groups and regions.

Finally, a promising field is the further development and implementation of information technologies and e-health, which has gained considerable importance over the past few years in Austria. The rollout of the Electronic Health Record (ELGA) is making significant progress together with its e-medication and e-report applications. ELGA aims to reduce organizational barriers, improve coordination and to strengthen patients' rights. In addition, steps are being taken to increase health literacy and digital health literacy in all population groups.

Appendices

■ 9.1 References

- Aistleithner R (2017). Healthcare professions in Austria. HOPE Exchange Programme (unpublished), 15 May 2017.
- Allgemeines Sozialversicherungsgesetz (1955). Bundesgesetz vom 9. September 1955 über die Allgemeine Sozialversicherung (Allgemeines Sozialversicherungsgesetz – ASVG.). BGBl. Nr. 189/1955. Last amendment: BGBl. I Nr. 66/2017.
- Andreas F (2009). Rechtliche Grundlagen des österreichischen Rettungswesens. Vienna: University of Vienna.
- Anzenberger J, Bodenwinkler A, Breyer E (2014). Migration und Gesundheit. Literaturbericht zur Situation in Österreich – Kurzfassung. Vienna: ÖBIG – Österreichisches Bundesinstitut für Gesundheitswesen.
- Apothekengesetz (1906). Gesetz vom 18. Dezember 1906, betreffend die Regelung des Apothekenwesens (Apothekengesetz). BGBl. Nr. 5/1907, last amendment BGBl. I Nr. 59/2018.
- Armutskonferenz (2017). Armutskonferenz. Vienna: Armutskonferenz. (<http://www.armutskonferenz.at>, accessed 26 July 2018).
- Arzneimittelgesetz (1983). Bundesgesetz vom 2. März 1983 über die Herstellung und das Inverkehrbringen von Arzneimitteln (Arzneimittelgesetz - AMG). BGBl. Nr. 185/1983, last amendment BGBl. I Nr. 59/2018.
- Ärzteausbildungsordnung (2015). Verordnung der Bundesministerin für Gesundheit über die Ausbildung zur Ärztin für Allgemeinmedizin/zum Arzt für Allgemeinmedizin und zur Fachärztin/zum Facharzt (Ärztinnen-/Ärzte-Ausbildungsordnung 2015 – ÄAO 2015). BGBl. II Nr. 147/2015.
- Ärzteblatt (2009). Reihe Internationale Psychotherapie: Österreich – Toleranz unter der Vielzahl der Therapieschulen. Berlin: Deutsches Ärzteblatt. (<https://www.aerzteblatt.de/archiv/62962/Reihe-Internationale-Psychotherapie-Oesterreich-Toleranz-unter-der-Vielzahl-der-Therapieschulen>, accessed 26 July 2018).
- Ärztegesetz (1998). Bundesgesetz über die Ausübung des ärztlichen Berufes und die Landesvertretung der Ärzte (Ärztegesetz 1998 – ÄrzteG 1998). BGBl. I Nr. 169/1998. Last amendment: BGBl. I Nr. 26/2017.

- Ärztezeitung (2016). Studium der Humanmedizin in Österreich. Vienna: Österreichische Ärztezeitung. (<http://www.aerztezeitung.at/archiv/oeaez-2016/oeaez-3-10022016/studium-humanmedizin-oesterreich-medizinstudium-bachelor-master-paul-gabriel.html>, accessed 26 July 2018).
- ASchG (1994). Bundesgesetz über Sicherheit und Gesundheitsschutz bei der Arbeit (ArbeitnehmerInnenschutzgesetz – ASchG). BGBl. Nr. 450/1994.
- Austrian Court of Auditors (2016a). Bericht des Rechnungshofes. Instrumente zur finanziellen Steuerung der Krankenversicherung. Vienna: Austrian Court of Auditors.
- Austrian Court of Auditors (2016b). Bericht des Rechnungshofes. Allgemeiner Einkommensbericht 2016. Reihe Einkommen 2016/1. Vienna: Austrian Court of Auditors.
- Austrian Court of Auditors (2018). Bericht des Rechnungshofes. Versorgung im Bereich der Zahnmedizin. Reihe BUND 2018/24. Vienna: Austrian Court of Auditors.
- Austrian Parliament (2013). Zielsteuerung Gesundheit, Information des Nationalrats. Vienna: Republik Österreich, Parlamentsdirektion. (https://www.parlament.gv.at/PAKT/VHG/XXIV/E/E_00301/index.shtml, accessed 26 July 2018).
- Austrian Parliament (2017a). Bundesrat. Vienna: Republik Österreich, Parlamentsdirektion. (<https://www.parlament.gv.at/PERK/NRBRBV/BR/>).
- Austrian Parliament (2017b). Der Weg eines Bundesgesetzes. Vienna: Republik Österreich, Parlamentsdirektion. (<https://www.parlament.gv.at/PERK/GES/WEG/>, accessed 26 July 2018).
- Austrian Parliament (2017c). Wozu Gewaltenteilung? Vienna: Republik Österreich, Parlamentsdirektion. (<https://www.parlament.gv.at/PERK/PARL/POL/ParluGewaltenteilung/index.shtml>, accessed 26 July 2018).
- Austrian Red Cross (2017a). Bilanz der Menschlichkeit. Jahresbericht des Österreichischen Roten Kreuzes 2016. Vienna: Österreichisches Rotes Kreuz.
- Austrian Red Cross (2017b). Katastrophenschutz in Österreich. Vienna: Österreichisches Rotes Kreuz. (<http://www.rotekreuz.at/katastrophenhilfe/katastrophenhilfe-im-detail/koordination-und-zustaendigkeiten/katastrophenschutz-in-oesterreich/>, accessed 26 July 2018).
- Austrian Red Cross (2017c). Finanzierung des Rettungsdienstes. Vienna: Österreichisches Rotes Kreuz. (<http://www.rotekreuz.at/rettungsdienst/daseinsvorsorge/finanzierung-des-rettungsdienstes/>, accessed 26 July 2018).
- AUVA (2016a). Jahresbericht 2015. Vienna: Allgemeine Unfallversicherungsanstalt Allgemeine Unfallversicherungsanstalt Allgemeine.
- AUVA (2016b). Richtlinien für die Gewährung von beruflichen und sozialen Maßnahmen der Rehabilitation: Rehabilitationsrichtlinien/RRL 2017. Vienna: Allgemeine Unfallversicherungsanstalt Allgemeine.
- AUVA (2017a). Stellungnahme der Allgemeinen Unfallversicherungsanstalt zur Parlamentarischen Anfrage Nr. 11466/J (XXV.GP), Querfinanzierung zw Unfall- u. Krankenversicherung. Vienna: Allgemeine Unfallversicherungsanstalt Allgemeine.
- AUVA (2017b). Informationsblatt über die Leistungen der Unfallversicherung für Versicherte, die einen Arbeitsunfall erlitten haben oder an einer Berufskrankheit erkrankt sind. Vienna: Allgemeine Unfallversicherung.
- B-VG (1930). Bundes-Verfassungsgesetz (B-VG). BGBl. Nr. 1/1930. Last amendment: BGBl. I Nr. 106/2016.
- Bachner F, Ladurner J, Habimana K, Ostermann H, Habl C (2012). Das österreichische Gesundheitswesen im internationalen Vergleich. Ausgabe 2011. Vienna: Gesundheit Österreich GmbH / ÖBIG.
- Bachner F, Griebler R, Winkler P, Bobek J, Renner A (2015). Mess- und Vergleichskonzept: Outcome-Messung im Gesundheitswesen. Vienna: Bundesministerium für Gesundheit.
- Bachner F, Bobek J, Griebler R (2016). Outcome-Messung im Gesundheitswesen basierend auf dem Mess- und Vergleichskonzept: Detailanalyse relevanter Outcomes im Gesundheitswesen (Baselinebericht). Vienna: Bundesministerium für Gesundheit und Frauen.
- Bachner F, Bobek J, Habimana K, Lepuschütz L, Schmidt A, Zuba M (2017). Monitoringbericht I/2017, Monitoring nach Vereinbarung gem. Art 15a B-VG Zielsteuerung-Gesundheit und Bundes-Zielsteuerungsvertrag. Vienna: Gesundheit Österreich GmbH.

- Bachner F, Bobek J, Lepuschütz L, Rainer L, Zuba M (2018a). Monitoringbericht Zielsteuerung-Gesundheit. Monitoring nach Vereinbarung gemäß Art 15a B-VG Zielsteuerung-Gesundheit und Zielsteuerungsvertrag. Vienna: Gesundheit Österreich GmbH.
- Bachner F, Griebler R, Schmidt A, Mathis-Edenhofer S, Rainer L, Bobek J (2018b). Outcome-Messung im Gesundheitswesen basierend auf dem Mess- und Vergleichskonzept. Detailanalyse relevanter Outcomes im Gesundheitswesen (Baselinebericht) Aktualisierte Fassung 2017. Zur Vorlage an die Bundes-Zielsteuerungskommission. Vienna: Bundesministerium für Arbeit, Soziales, Gesundheit und Konsumentenschutz.
- Bancher-Todesca D (2014). 40 Jahre Mutter-Kind-Pass: quo vadis? *Speculum – Zeitschrift für Gynäkologie und Geburtshilfe*.32:15–17.
- BASG (2017a). Versandapotheken. Vienna: Bundesamt für Sicherheit im Gesundheitswesen. (<http://www.basg.gv.at/inspektionen/versandapotheken/>, accessed 26 July 2018).
- BASG (2017b). Liste in Österreich registrierter Versandapotheken. Vienna: Bundesamt für Sicherheit im Gesundheitswesen. (https://versandapotheken.basg.gv.at/versandapotheken/verify/main?_afzLoop=56327372647671692&_afzWindowMode=0&_adf.ctrl-state=17rkrmq24_4, accessed 26 July 2018).
- BASG (2017c). Zugelassene Arzneimittel in Österreich. Vienna: Bundesamt für Sicherheit im Gesundheitswesen. (https://www.basg.gv.at/suche/index.php?eID=tx_nawsecuredl&cu=0&g=0&ct=0&hash=d4e2b7a00c05af30344bdb894bfe925fd345a66&file=fleadmin/user_upload/Arzneispezialit%C3%A4ten_%C3%9Cbersicht_2017.pdf, accessed 26 July 2018).
- BASG (2017d). Medical devices fee. Vienna: Bundesamt für Sicherheit im Gesundheitswesen. (<http://www.basg.gv.at/en/medical-devices/medical-devices-fee/>, accessed 26 July 2018).
- BASG (2017e). Medicines. Vienna: Bundesamt für Sicherheit im Gesundheitswesen. (<http://www.basg.gv.at/en/medicines/>, accessed 26 July 2018).
- BASG (2018). Arzneimittel in Österreich. Vienna: Bundesamt für Sicherheit im Gesundheitswesen. (<https://www.basg.gv.at/news-center/statistiken/arzneimittel-in-oesterreich/>, accessed 26 July 2018).
- Bauern-Krankenversicherungsgesetz (1965). Bundesgesetz vom 7. Juli 1965 über die Krankenversicherung der in der Land- und Forstwirtschaft selbständig Erwerbstätigen (Bauern-Krankenversicherungsgesetz – B-KVG) BGBl. Nr. 219/1965.
- Bauern-Pensionsversicherungsgesetz (1970). Bundesgesetz vom 12. Dezember 1969 über die Pensionsversicherung der in der Land- und Forstwirtschaft selbständig Erwerbstätigen (Bauern-Pensionsversicherungsgesetz – B-PVG.) BGBl. Nr. 28/1970.
- Bauern-Sozialversicherungsgesetz (1978). Bundesgesetz vom 11. Oktober 1978 über die Sozialversicherung der in der Land- und Forstwirtschaft selbständig Erwerbstätigen (Bauern-Sozialversicherungsgesetz – BSVG). BGBl. Nr. 559/1978. Last amendment: BGBl. I Nr. 53/2017.
- Baumgartner J (2017). Sterbeorte Österreich. Graz: Koordination Palliativbetreuung Steiermark.
- Beamten-Kranken- und Unfallversicherungsgesetz (1967). Bundesgesetz vom 31. Mai 1967 über die Kranken- und Unfallversicherung öffentlich Bediensteter (Beamten-Kranken- und Unfallversicherungsgesetz – B-KUVG.) BGBl. Nr. 200/1967. Last amendment: BGBl. I Nr. 37/2018.
- BeNeLuxA (2017). BeNeLuxA collaboration [website]. (<http://www.beneluxa.org/>, accessed 26 July 2018).
- Beyer S, Eibel M, Sprajcer S (2017). HPC Mobil: Hospizkultur und Palliative Care in der mobilen Pflege und Betreuung zu Hause. Vienna: Poster presented at the Austrian Interdisciplinary Palliative Care Congress, 27–29 April 2017.
- BGF Netzwerk (2017). Aufgabe und ziele. Linz: Netzwerk betriebliche Gesundheitsförderung. (<http://www.netzwerk-bgf.at/portal27/bgfportal/content?contentid=10007.751726&portal.componentId=gtnf4738399-8210-455c-ae96-54c27b3a385c&viewmode=content>, accessed 26 July 2018).
- BIQG/BMG (2011). Bundesqualitätsleitlinie zur integrierten Versorgung von erwachsenen Patientinnen und Patienten für die präoperative Diagnostik bei elektiven Eingriffen

- (BQLL PRÄOP). Im Auftrag der Bundesgesundheitskommission. Vienna: Gesundheit Österreich GmbH.
- BIQG/BMG (2012). Aufnahme- und Entlassungsmanagement. Bundesqualitätsleitlinie. Im Auftrag der Bundesgesundheitsagentur. Vienna: Gesundheit Österreich GmbH.
- BKA (2017a). Medizinische Behandlung und Versorgung mit Lebensmitteln. Vienna: Bundeskanzleramt. (<https://www.help.gv.at/Portal.Node/hlpd/public/content/169/Seite.1694200.html>, accessed 26 July 2018).
- BKA (2017b). Rauchen und alkohol. Vienna: Bundeskanzleramt. (<https://www.help.gv.at/Portal.Node/hlpd/public/content/174/Seite.1740250.html>, accessed 26 July 2018).
- BKA (2017c). Kernziele der "Europa 2020" – Strategie für Europa und für Österreich. Vienna: Bundeskanzleramt. (<https://www.bundeskanzleramt.gv.at/kernziele-europa-2020>, accessed 26 July 2018).
- BKA (2018a). Checkliste Sozialversicherung und weitere soziale Leistungen in Österreich für Drittstaatsangehörige. Vienna: Bundeskanzleramt. (<https://www.help.gv.at/Portal.Node/hlpd/public/content/12/Seite.120756.html>, accessed 26 July 2018).
- BKA (2018b). Zusammen. Für unser Österreich. Regierungsprogramm 2017–2022. Vienna: Bundeskanzleramt.
- BKA (2018c). Krankengeld. Vienna: Bundeskanzleramt. (<https://www.help.gv.at/Portal.Node/hlpd/public/content/217/Seite.2170004.html>, accessed 26 July 2018).
- BMASGK (2016). Darstellung des BMASGK auf Basis der Daten von PFIF – Pflegegeldinformation des Hauptverbandes der österreichischen Sozialversicherungsträger (Anspruchsberechtigte Personen Pflegegeld 2016), Pflegedienstleistungsstatistik 2016 (Statistik Österreich) und 24-Stunden-Betreuung Monatsstatistik (Dez. 2016). Vienna: Bundesministerium für Arbeit, Soziales, Gesundheit und Konsumentenschutz.
- BMASGK (2018a). Pflegefonds. Vienna: Bundesministerium für Arbeit, Soziales, Gesundheit und Konsumentenschutz. (https://www.sozialministerium.at/site/Pension_Pflege/Pflege_und_Betreuung/Hilfe_Finanzielle_Unterstuetzung/Pflegefonds/, accessed 26 July 2018).
- BMASGK (2018b). NQZ: Zahlen, Daten, Fakten. Vienna: Bundesministerium für Arbeit, Soziales, Gesundheit und Konsumentenschutz. (<http://www.nqz-austria.at/nqz-haeuser/zahlen-daten-fakten/>, accessed 26 July 2018).
- BMASGK (2018c). Selbständige Ambulatorien in Österreich. Vienna: Bundesministerium für Arbeit, Soziales, Gesundheit und Konsumentenschutz. (https://www.bmgf.gv.at/home/Gesundheit/Krankenanstalten/Krankenanstalten_und_selbststaendige_Ambulatorien_in_Oesterreich/Selbststaendige_Ambulatorien_in_Oesterreich, accessed 26 July 2018).
- BMASGK (2018d). Öffentlicher Gesundheitsdienst (ÖGD). Vienna: Bundesministerium für Arbeit, Soziales, Gesundheit und Konsumentenschutz. (https://www.bmgf.gv.at/home/Gesundheit/Gesundheitssystem_Qualitaetsversicherung/Oeffentlicher_Gesundheitsdienst/Oeffentlicher_Gesundheitsdienst_OeGD_, accessed 26 July 2018).
- BMASGK (2018e). Katalog ambulanter Leistungen (KAL): Entwicklung und Pilotprojekte bis inkl. 2013. Vienna: Bundesministerium für Arbeit, Soziales, Gesundheit und Konsumentenschutz. (https://www.bmgf.gv.at/home/Gesundheit/Gesundheitssystem_Qualitaetsversicherung/Dokumentation/Katalog_ambulanter_Leistungen_KAL_Entwicklung_und_Pilotprojekte_bis_inkl_2013, accessed 26 July 2018).
- BMASGK (2018f). Gesundheitsförderungsstrategie im Rahmen des Bundes-Zielsteuerungsvertrags. Vienna: Bundesministerium für Arbeit, Soziales, Gesundheit und Konsumentenschutz. (<https://www.bmgf.gv.at/home/Gesundheitsfoerungsstrategie>, accessed 26 July 2018).
- BMASGK (2018g). Förderung der 24-Stunden-Betreuung. Vienna: Bundesministerium für Arbeit, Soziales, Gesundheit und Konsumentenschutz. (https://www.sozialministerium.at/site/Pension_Pflege/Pflege_und_Betreuung/24_Stunden_Betreuung/#intertitle-1, accessed 26 July 2018).
- BMASGK (2018h). Kontaktstelle Patientenmobilität. Versicherungsmitgliedstaat. Vienna: Bundesministerium für Arbeit, Soziales, Gesundheit und Konsumentenschutz. (<https://www>

- [gesundheits.gv.at/service/patientenmobilitaet/versicherungsmittgliedstaat/inhalt](https://www.gesundheit.gv.at/service/patientenmobilitaet/versicherungsmittgliedstaat/inhalt), accessed 26 July 2018).
- BMASK (2012). Österreichischer Pflegevorsorgebericht 2011. Vienna: Bundesministerium für Arbeit, Soziales und Konsumentenschutz.
- BMASK (2016). Österreichischer Pflegevorsorgebericht 2015. Vienna: Bundesministerium für Arbeit, Soziales und Konsumentenschutz.
- BMASK (2017a). Österreichischer Pflegevorsorgebericht 2016. Vienna: Federal Ministry of Labour, Social Affairs and Consumer Protection.
- BMASK (2017b). Demenzstrategie – Gut leben mit Demenz. Vienna: Bundesministerium für Arbeit, Soziales und Konsumentenschutz. (<http://www.demenzstrategie.at/>, accessed 26 July 2018).
- BMF, BMGF, HVVB (2017). Gesunde Schule Österreich. Vienna: Bundesministerium für Finanzen. (https://www.bmgf.gv.at/home/Gesundheit/Kinder_und_Jugendgesundheit/Schulgesundheit/Gesunde_Schule_nationale_und_internationale_Netzwerke, accessed 27 July 2017).
- BMF (2017). Fiscal federalism. Vienna: Bundesministerium für Finanzen. (<https://english.bmf.gv.at/budget-economic-policy/Fiscal-Federalism.html>, accessed 26 July 2018).
- BMFJ (2018). Familienhospizkarenz-Zuschuss. Vienna: Bundesministerium für Familie und Jugend. (<https://www.bmfj.gv.at/familie/finanzielle-unterstuetzungen/familienhospizkarenz-zuschuss/familienhospizkarenz-zuschuss.html>, accessed 26 July 2018).
- BMG (2010). The Austrian DRG system. Vienna: Bundesministerium für Gesundheit.
- BMG (2013a). Gesundheitsfolgenabschätzung (GFA) in Österreich. Leitfaden für die Praxis. Vienna: Bundesministerium für Gesundheit.
- BMG (2013b). Nationaler Aktionsplan Ernährung NAP.e / 2013 inkl. Maßnahmenübersicht und Planung 2013. Vienna: Bundesministerium für Gesundheit.
- BMG (2014a). Das Team rund um den Hausarzt, Konzept zur multiprofessionellen und interdisziplinären Primärversorgung in Österreich. Vienna: Bundesministerium für Gesundheit.
- BMG (2014b). Krebsrahmenprogramm Österreich. Vienna: Bundesministerium für Gesundheit.
- BMG (2015a). Nationaler Aktionsplan für seltene Erkrankungen NAP.se 2014–2018. Vienna: Bundesministerium für Gesundheit.
- BMG (2015b). Österreichische Suchtpräventionsstrategie. Strategie für eine kohärente Präventions- und Suchtpolitik. Vienna: Bundesministerium für Gesundheit.
- BMG (2015c). Qualitätsstandard Organisation und Strategie der Krankenhaushygiene. Vienna: Bundesministerium für Gesundheit.
- BMG (2015d). Health targets for Austria: a Health in All Policies case study. Fact-sheet. Vienna: Bundesministerium für Gesundheit.
- BMGF (2004). Verordnung der Bundesministerin für Gesundheit und Frauen über Höchstaufschläge im Arzneimittelgroßhandel. Vienna: Bundesministerium für Gesundheit und Frauen.
- BMGF (2016a). Austrian Inpatient Quality Indicators (A-IQI), Bericht 2015. Vienna: Bundesministerium für Gesundheit und Frauen.
- BMGF (2016b). Was kostet der Spitalsaufenthalt? Vienna: Bundesministerium für Gesundheit und Frauen. (<https://www.gesundheit.gv.at/gesundheitsystem/leistungen/krankenhausaufenthalt/selbstbehalt-krankenhaus>, accessed 26 July 2018).
- BMGF (2016c). Prostatakrebs: Früherkennung. Vienna: Bundesministerium für Gesundheit und Frauen. (<https://www.gesundheit.gv.at/krankheiten/krebs/hoden-prostatakrebs/prostata-frueherkennung>, accessed 26 July 2018).
- BMGF (2016d). Gesundheitsförderungsstrategie. Vienna: Bundesministerium für Gesundheit und Frauen.
- BMGF (2016e). Krankenanstalten in Zahlen. Überregionale Auswertung der Dokumentation der landesgesundheitsfondsfinanzierten Krankenanstalten Österreich 2015. Vienna: Bundesministerium für Gesundheit und Frauen.
- BMGF (2016f). Rezeptgebühr: So werden Medikamentenkosten abgedeckt. Vienna:

- Bundesministerium für Gesundheit und Frauen. (<https://www.gesundheit.gv.at/gesundheitsystem/leistungen/medikamente/rezeptgebuehr>, accessed 26 July 2018).
- BMGF (2016g). Health targets for Austria. Fact-sheet. Vienna: Bundesministerium für Gesundheit und Frauen.
- BMGF (2016h). Kostenstellenstatistik der österreichischen Krankenanstalten des Bundesministeriums für Gesundheit und Frauen. Vienna: Bundesministerium für Gesundheit und Frauen.
- BMGF (2016i). Ist-Analyse für R-GZ, Stand Mai 2016. Vienna: Bundesministerium für Gesundheit und Frauen.
- BMGF (2017a). Psychische Gesundheit. Vienna: Bundesministerium für Gesundheit und Frauen. (https://www.bmgf.gv.at/home/Gesundheit/Psychische_Gesundheit/, accessed 26 July 2018).
- BMGF (2017b). Zahnambulatorien bieten mehr Leistungen an. Vienna: Bundesministerium für Gesundheit und Frauen. (https://www.bmgf.gv.at/home/Service/Gesundheitsleistungen/Zahnambulatorien_bieten_mehr_Leistungen_an, accessed 26 July 2018).
- BMGF (2017c). Notfallsanitäterin/Notfallsanitäter. Vienna: Bundesministerium für Gesundheit und Frauen. (<https://www.gesundheit.gv.at/gesundheitsystem/berufe/krankenpflege/notfallsanitaeter>, accessed 26 July 2018).
- BMGF (2017d). Komplementär/Alternativmedizin. Vienna: Bundesministerium für Gesundheit und Frauen. (https://www.bmgf.gv.at/home/Gesundheit/Medizin/Komplementaer_Alternativmedizin/, accessed 26 July 2018).
- BMGF (2017e). Gesundheitsziele Österreich. Richtungsweisende Vorschläge für ein gesünderes Österreich – Langfassung. Vienna: Bundesministerium für Gesundheit und Frauen.
- BMGF (2017f). Health Targets Austria. Relevance – Options – Contexts: Abbreviated version. Vienna: Bundesministerium für Gesundheit und Frauen.
- BMGF (2017g). Bundesministerium für Gesundheit und Frauen [website]. Vienna: Bundesministerium für Gesundheit und Frauen. (<http://www.bmgf.gv.at>, accessed 26 July 2018).
- BMGF (2017h). Krankenanstalten mit ausgewählten Kennzahlen. Vienna: Bundesministerium für Gesundheit und Frauen. (http://www.kaz.bmgf.gv.at/fileadmin/user_upload/Krankenanstalten/10_T_KH_RT.pdf, accessed 26 July 2018).
- BMGF (2017i). Krankenanstalten mit ausgewählten Kennzahlen nach Versorgungsfunktion 2016. Vienna: Bundesministerium für Gesundheit und Frauen. (http://www.kaz.bmgf.gv.at/fileadmin/user_upload/Krankenanstalten/9_T_KH_Versorgungsfunktion.pdf, accessed 26 July 2018).
- BMGF (2017j). Healthcare professions in Austria. Vienna: Bundesministerium für Gesundheit und Frauen. (<http://www.bmgf.gv.at>, accessed 26 July 2018).
- BMGF (2017k). Krankenanstalten in Zahlen. Medizinische. Medizinische Dokumentation in Krankenanstalten. Vienna: Bundesministerium für Gesundheit und Frauen. (<http://www.kaz.bmgf.gv.at/medizinische-dokumentation.html>, accessed 26 July 2018).
- BMGF (2017l). E-Impfpass: Bund, Länder und Sozialversicherung bringen Zukunftsprojekt auf den Weg. Vienna: Bundesministerium für Gesundheit und Frauen. (https://www.ots.at/presseaussendung/OTS_20170630_OTS0181/e-impfpass-bund-laender-und-sozialversicherung-bringen-zukunftsprojekt-auf-den-weg, accessed 26 July 2018).
- BMGF (2017m). Weiterentwicklung Mutter-Kind-Pass. Vienna: Bundesministerium für Gesundheit und Frauen. (https://www.bmgf.gv.at/home/Gesundheit/Gesundheitsfoerderung_Praevention/Eltern_und_Kind/Weiterentwicklung_Mutter_Kind_Pass, accessed 26 July 2018).
- BMGF (2017n). Kostenloses Kinder-Impfprogramm. Vienna: Bundesministerium für Gesundheit und Frauen. (https://www.bmgf.gv.at/home/Service/Gesundheitsleistungen/Kostenloses_nbsp_Kinder_Impfprogramm, accessed 26 July 2018).
- BMGF (2017o). Impfplan Österreich. Vienna: Bundesministerium für Gesundheit und Frauen.
- BMGF (2017p). Expertisezentren für seltene Erkrankungen. Vienna: Bundesministerium für Gesundheit und Frauen. (https://www.bmgf.gv.at/home/Gesundheit/Krankheiten/Seltene_Erkrankungen/Expertisezentren_fuer_seltene_Erkrankungen, accessed 26 July 2018).

- BMGF (2017q). Klassifikation der österreichischen Krankenanstalten. Vienna: Bundesministerium für Gesundheit und Frauen.
- BMGF (2017r). Anzeige übertragbarer Krankheiten – Epidemiologisches Meldesystem (EMS). Vienna: Bundesministerium für Gesundheit und Frauen. (https://www.bmgf.gv.at/home/Gesundheit/Krankheiten/Uebertragbare_Krankheiten/Meldung_uebertragbarer_Krankheiten/, accessed 26 July 2018).
- BMGF (2017s). Gesundheitsziele Österreich. Von der Definition zur Umsetzung. Vienna: Bundesministerium für Gesundheit und Frauen. (<https://gesundheitsziele-oesterreich.at/entstehung-und-umsetzung/>, accessed 26 July 2018).
- BMGF (2017t). Zielsteuerung-Gesundheit ab 2017. Informationen zur Vereinbarung gemäß Art. 15a B-VG über die Organisation und Finanzierung des Gesundheitswesens, zur Vereinbarung gemäß Art. 15a B-VG Zielsteuerung-Gesundheit sowie zum Vereinbarungssetzungsgesetz 2017. Vienna: Bundesministerium für Gesundheit und Frauen. (https://www.bmgf.gv.at/home/Gesundheit/Gesundheitsreform/Zielsteuerung_Gesundheit_ab_2017, accessed 26 July 2018).
- BMGF (2017u). Austrian health targets. Vienna: Bundesministerium für Gesundheit und Frauen. (<https://gesundheitsziele-oesterreich.at/english-summary/>, accessed 26 July 2018).
- BMGF (2017v). Nationaler Aktionsplan Ernährung (NAP.e). Vienna: Bundesministerium für Gesundheit und Frauen. (https://www.bmgf.gv.at/home/Gesundheit/Ernaehrung/Aktionsplan_Ernaehrung/, accessed 26 July 2018).
- BMGF (2017w). Nationaler Aktionsplan Bewegung (NAP.b). Vienna: Bundesministerium für Gesundheit und Frauen. (https://www.bmgf.gv.at/home/Nationaler_Aktionsplan_Bewegung, accessed 26 July 2018).
- BMGF (2017x). Aktionsplan Frauengesundheit. 40 Maßnahmen für die Gesundheit von Frauen in Österreich. Vienna: Bundesministerium für Gesundheit und Frauen.
- BMGF (2017y). Nationaler Aktionsplan zur Antibiotikaresistenz. NAP-AMR. Vienna: Bundesministerium für Gesundheit und Frauen.
- BMGF (2017z). Gut leben mit Demenz. Vienna: Bundesministerium für Gesundheit und Frauen. (<https://www.bmgf.gv.at/home/Gesundheit/Krankheiten/Demenz/>, accessed 26 July 2018).
- BMGF (2017aa). Seltene Erkrankungen in Österreich. Vienna: Bundesministerium für Gesundheit und Frauen. (https://www.bmgf.gv.at/home/Gesundheit/Krankheiten/Seltene_Erkrankungen/, accessed 26 July 2018).
- BMGF (2017ab). Kinder- und Jugendgesundheitsstrategie. Vienna: Bundesministerium für Gesundheit und Frauen. (https://www.bmgf.gv.at/home/Gesundheit/Kinder_und_Jugendgesundheit/Kinder_und_Jugendgesundheitsstrategie/, accessed 26 July 2018).
- BMGF (2017ac). Diagnosen- und Leistungsdokumentation der österreichischen Krankenanstalten des Bundesministeriums für Gesundheit und Frauen. Vienna: Bundesministerium für Gesundheit und Frauen.
- BMGF (2017ad). Qualitätssysteme in Akutkrankenhäusern: Expertenbericht, Berichtsjahr 2015. Beschlossen durch die Bundes-Zielsteuerungskommission im April 2017. Vienna: Bundesministerium für Gesundheit und Frauen. Geschäftsführung der Bundesgesundheitsagentur.
- BMGF (2017ae). Gesundheitsberichterstattung in Österreich. Vienna: Bundesministerium für Gesundheit und Frauen. (https://www.bmgf.gv.at/home/Gesundheit/Gesundheitssystem_Qualitaetssicherung/Gesundheitsberichte/Gesundheitsberichterstattung_in_Oesterreich, accessed 26 July 2018).
- BMGF (2017af). Zielsteuerung-Gesundheit – Monitoringberichte. Vienna: Bundesministerium für Gesundheit und Frauen. (https://www.bmgf.gv.at/home/Gesundheit/Gesundheitsreform/Zielsteuerung_Gesundheit_Monitoringberichte, accessed 26 July 2018).
- BMGF (2017ag). Health technology assessment. Vienna: Bundesministerium für Gesundheit und Frauen. (https://www.bmgf.gv.at/home/Gesundheit/Medizin/Health_Technology_Assessment/, accessed 26 July 2018).
- BMGF (2017ah). Vorsorgemittel. Vienna: Bundesministerium für Gesundheit und Frauen.

- (https://www.bmgf.gv.at/home/Gesundheit/Gesundheitsfoerderung_Praevention/Vorsorgemittel/Vorsorgemittel, accessed 26 July 2018).
- BMGF (2017ai). Anerkennung ausländischer Berufsqualifikationen in Österreich. Vienna: Bundesministerium für Gesundheit und Frauen. (<https://www.bmgf.gv.at/home/Gesundheit/Berufe/Anerkennung/>, accessed 26 July 2018).
- BMGF (2017aj). Healthcare professions in Austria. Vienna: Bundesministerium für Gesundheit und Frauen.
- BMGF (2017ak). Gesundheitsportal: Wie Arzneimittelpreise gebildet werden. (<https://www.gesundheit.gv.at/gesundheitsystem/leistungen/medikamente/arzneimittelpreise>, accessed 26 July 2018).
- BMGF (2017al). Legal framework of cross-border healthcare in Austria. In the context of Regulation (EC) No. 883/2004 a distinction is made between unplanned and planned treatment. Vienna: Bundesministerium für Gesundheit und Frauen. (<https://www.gesundheit.gv.at/service/patient-mobility/member-state-affiliation/legal-framework-cross-border-healthcare-in-austria>, accessed 26 July 2018).
- BMGF (2017am). Kassen-, Wahl- oder Privatarzt?. Vienna: Bundesministerium für Gesundheit und Frauen. (<https://www.gesundheit.gv.at/gesundheitsystem/leistungen/arztbesuch/wahlarzt-kosten>, accessed 26 July 2018).
- BMGF (2017an). Gesundheitsportal: Patientenrechte. Vienna: Gesundheit Österreich GmbH. (<https://www.gesundheit.gv.at/gesundheitsystem/patientenrechte/inhalt>, accessed 27 July 2018).
- BMGF (2017ao). “Wenn’s weh tut! 1450” – Startschuss für die neue telefonische Gesundheitsberatung. Vienna: Bundesministerium für Gesundheit und Frauen. (https://www.ots.at/presseaussendung/OTS_20170407_OTS0093/wenns-weh-tut-1450-startschuss-fuer-die-neue-telefonische-gesundheitsberatung, accessed 27 July 2018).
- BMGF (2017ap). Österreichische Rechtsvorschriften über Medizinprodukte. Vienna: Bundesministerium für Gesundheit und Frauen. (https://www.bmgf.gv.at/home/Schwerpunkte/Medizin/Medizinprodukte/Oesterreichische_Rechtsvorschriften_ueber_Medizinprodukte, accessed 26 July 2018).
- BMGF (2017aq). Bepunktungsmodell für den spitalsambulanten Bereich. LKF ambulant, Modell 2017. Vienna: Bundesministerium für Gesundheit und Frauen.
- BMGF (2017ar). Rezeptgebühr: So werden Medikamentenkosten abgedeckt. Vienna: Bundesministerium für Gesundheit und Frauen. (<https://www.gesundheit.gv.at/gesundheitsystem/leistungen/medikamente/rezeptgebuehr>, accessed 26 July 2018).
- BMGFJ (2008). Selbstständige Ambulatorien in Österreich. Vienna: Bundesministerium für Gesundheit, Familie und Jugend.
- BMI (2017). Zivilschutz in Österreich, Staatliches Krisen- und Katastrophenschutzmanagement (SKKM). Vienna: Bundesministerium für Innere. (<https://www.bmi.gv.at/204/skkm/start.aspx>, accessed 26 July 2018).
- BMLVS (2013). Nationaler Aktionsplan Bewegung. Vienna: Bundesministerium für Landesverteidigung und Sport.
- BMVIT (2011). Austrian Road Safety Programme 2011–2020. Vienna: Austrian Ministry for Transport, Innovation and Technology.
- Braunegger-Kallinger G, Ladurner J (2014). Workshop der “TF Sozioökonomische Determinanten der Gesundheit (TF-SÖD)”. Graz: FGÖ Gesundheitsförderungskonferenz.
- Bundespflegegeldgesetz (1993). Bundesgesetz, mit dem ein Pflegegeld eingeführt wird (Bundespflegegeldgesetz –BPPGG). BGBl. Nr. 110/1993.
- Busse R, Panteli D (2015). Evaluation der nationalen HTA-Strategie in Österreich (unveröffentlichter Bericht). Berlin: Technische Universität Berlin.
- Centeno C, Lynch T, Donea O, Rocafort J, Clark D (2013). Atlas of palliative care in Europe 2013. Full Edition. Milan: EAPC Press.
- Colombo F, Lena-Nozal A, Mercier J, Tjadens F (2011). Help wanted? Providing and paying for long-term care. OECD Health Policy Studies. Paris: OECD Publishing.

- CORRECTIV – Recherchen für die Gesellschaft (2017). Euros für Ärzte. Essen/Berlin: CORRECTIV. (<https://correctiv.org/recherchen/euros-fuer-aerzte/>, accessed 2 August 2018).
- Currie C (2004). Young people's health in context. Health Behaviour in School-aged Children (HBSC) study: International report from the 2001/2002 survey. Health Policy for Children and Adolescents, No. 4. Geneva: World Health Organization.
- Currie C, Zanotti C, Morgan A, Currie D, de Looze M, Roberts C et al. (2012). Social determinants of health and well-being among young people. Health Behaviour in School-aged Children (HBSC) study: International report from the 2009/2010 survey. Health Policy for Children and Adolescents, No. 6. Copenhagen: WHO Regional Office for Europe.
- Czypionka T (2015). Gesundheitsreform – der menschliche Faktor. Soziale Sicherheit. 2:58–63.
- Czypionka T, Sigl C (2016). Austria. In: Sagan A, Thomson S eds. Voluntary health insurance in Europe: Country experience. Copenhagen: European Observatory on Health Systems and Policies.
- Czypionka T, Kraus M, Riedel M, Röhrling G (2007). Wartezeiten auf Elektivoperationen – Neues zur Frage der Transparenz? Health System Watch, IV/2007.
- Czypionka T, Röhrling G, Kraus M, Schnabl A, Eichwalder S (2008). Fondsspitaler in Österreich: ein Leistungs- und Finanzierungsvergleich: Endbericht. Studie im Auftrag der Arbeitsgemeinschaft der Ordensspitaler Österreichs. Vienna: Institute for Advanced Studies (IHS).
- Czypionka T, Kraus M, Röhrling G (2013). Wartezeiten auf Elektivoperationen – Neues zur Frage der Transparenz? Health System Watch, II/2013.
- Czypionka T, Röhrling G, Six E (2018). Can people afford to pay for health care? New evidence on financial protection in Austria. Copenhagen: WHO Regional Office for Europe.
- der Standard (2017). Ärzteteinkommen: Von Intransparenz geprägt. 29 September 2017. (<https://derstandard.at/2000062903675/Aerzteinkommen-Von-Intransparenz-gepraegt>, accessed 26 July 2018).
- Die Armutskonferenz (2012). Monitoring bedarfsorientierte Mindestsicherung. Vienna: Die Armutskonferenz.
- Die Presse (2015). Einsparungen: Die nächste Front im Ärztoprotest. 26 March 2015.
- Die Presse (2017). Deckelung wird aufgehoben: Aus für Wartezeiten auf CT und MRT. 29 March 2017.
- Dienstgeberabgabegesetz (2003). Bundesgesetz über eine pauschalierte Abgabe von Dienstgebern geringfügig beschäftigter Personen (Dienstgeberabgabegesetz – DAG). BGBl. I Nr. 28/2003. Last amendment: BGBl. I Nr. 84/2009.
- Dietscher C, Lorenc J, Pelikan J (2015). Reihe Gesundheitskompetente Kankenbehandlungsorganisationen (2). Toolbox 2015 zum Wiener Konzept Gesundheitskompetenter Krankenbehandlungsorganisationen (WKGKKO). Vienna: Ludwig Boltzmann Institut Health Promotion Research.
- Dimmel N, Schenk M, Stelzer-Orthofer C (2014). Handbuch Armut in Österreich. Innsbruck, Vienna: Bozen, Studienverlag.
- Directive 2005/36/EC Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications.
- Directive 2011/24/EU Directive 2011/24/EU of the European Parliament and of the Council of 9 March 2011 on the application of patients' rights in cross-border healthcare.
- Directive 2011/62/EU Directive 2011/62/EU of the European Parliament and of the Council of 8 Juni 2011 amending Directive 2001/83/EC on the Community code relating to medicinal products for human use, as regards the prevention of the entry into the legal supply chain of falsified medicinal products.
- ECDC (2016). Surveillance report: Measles and rubella monitoring. Stockholm: European Centre for Disease Prevention and Control.
- ELGA (2017). Welche Einrichtungen arbeiten bereits mit ELGA? Vienna: ELGA. (https://www.elga.gv.at/fileadmin/user_upload/Dokumente_PDF_MP4/Infomaterialien/gestartete_ELGA-GDA.pdf, accessed 26 July 2018).

- Epidemiegesetz (1950). Epidemiegesetz 1950. BGBl. Nr. 1/1950.
- EU-Beitrittsvertrag (1995). EU-Beitrittsvertrag. BGBl. Nr. 45/1995.
- EU-PMG (2014). EU-Patientenmobilitätsgesetz. BGBl. I Nr. 32/2014.
- EUNetHTA (2017). EUNetHTA [website]. (<http://www.eunetha.eu/>, accessed 26 July 2018).
- European Central Bank (2018). Convergence criteria. Frankfurt am Main: European Central Bank. (<https://www.ecb.europa.eu/ecb/orga/escb/html/convergence-criteria.en.html>, accessed 26 July 2018).
- European Commission (2013a). Study on corruption in the healthcare sector. Luxembourg: European Commission – Directorate-General Home Affairs.
- European Commission (2013b). Eurobarometer: Patient safety and quality of care. Eurobarometer 80.2 Results for Austria. Brussels: European Commission.
- European Commission (2017a). Recommendation for a Council Recommendation on the 2017 National Reform Programme of Austria and delivering a Council opinion on the 2017 Stability Programme of Austria. Brussels: European Commission.
- European Commission (2017b). A European One Health Action Plan Against Antimicrobial Resistance (AMR). Brussels: European Commission.
- European Commission (2017c). European reference networks. Brussels: European Commission. (http://ec.europa.eu/health/ern/policy_en, accessed 26 July 2018).
- European Commission (2017d). Corruption. Special Eurobarometer 470 Report. Brussels: European Commission (Wave EB88.2). (<http://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/ResultDoc/download/DocumentKy/81007>, accessed 7 August 2018).
- Eurostat (2015). Foreign citizens accounted for fewer than 7% of persons living in the EU Member States in 2014. Foreign citizens living in the EU Member States. Eurostat Newsrelease 230. Luxembourg: Eurostat Press Office.
- Eurostat (2017a). Life expectancy at birth by gender. Luxembourg: Statistical Office of the European Union. (http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&code=sdg_03_10&language=de, accessed 26 July 2018).
- Eurostat (2017b). Bruttoinlandsprodukt zu Marktpreisen. Luxembourg: Statistical Office of the European Union. (http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=namq_10_gdp&lang=de, accessed 26 July 2018).
- Eurostat (2017c). General government gross debt – annual data, percentage of gross domestic product (GDP). Luxembourg: Statistical Office of the European Union. (<http://ec.europa.eu/eurostat/web/products-datasets/-/tsdde410&lang=en>, accessed 26 July 2018).
- Eurostat (2017d). Healthy life years. Luxembourg: Statistical Office of the European Union. (http://ec.europa.eu/eurostat/search?p_auth=XqhUEvyr&p_p_id=estatsearchportlet_WAR_estatsearchportlet&p_p_lifecycle=1&p_p_state=maximized&p_p_mode=view&_estatsearchportlet_WAR_estatsearchportlet_action=search&text=Healthy+life+years+%28from+2004+onwards%29, accessed 26 July 2018).
- Eurostat (2017e). Unemployment statistics at regional level. Luxembourg: Statistical Office of the European Union. (http://ec.europa.eu/eurostat/statistics-explained/index.php/Unemployment_statistics_at_regional_level, accessed 26 July 2018).
- Eurostat (2017f). Unemployment by sex and age – annual average. Luxembourg: Statistical Office of the European Union. (http://ec.europa.eu/eurostat/web/products-datasets/-/une_rt_a, accessed 26 July 2018).
- Eurostat (2017g). Medical technology. Luxembourg: Statistical Office of the European Union. (http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_rs_equip&lang=de, accessed 26 July 2018).
- Eurostat (2017h). Self-perceived health by sex, age and income quintile. Luxembourg: Statistical Office of the European Union. (http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_silc_10, accessed 26 July 2018).
- Eurostat (2017i). Smoking of tobacco products by sex, age and educational attainment level. Luxembourg: Statistical Office of the European Union. (http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_ehis_sk1e&lang=en, accessed 26 July 2018).

- Eurostat (2018a). Curative care bed occupancy rate. Luxembourg: Statistical Office of the European Union. (http://ec.europa.eu/eurostat/web/products-datasets/-/hlth_co_bedoc, accessed 26 July 2018).
- Eurostat (2018b). Surgical operations and procedures performed in hospitals by ICD-9-CM. Luxembourg: Statistical Office of the European Union. (http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_co_proc2&lang=en, accessed 26 July 2018).
- Eurostat (2018c). Self-perceived health by sex, age and income quintile. Luxembourg: Statistical Office of the European Union. (<http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>, accessed 26 July 2018).
- Eurostat (2018d). Life expectancy by age, sex and educational attainment level. Luxembourg: Statistical Office of the European Union. (<http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>, accessed 27 July 2018).
- Eurostat (2018e). Infant mortality rates. Luxembourg: Statistical Office of the European Union. (http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_minfind&lang=en, accessed 26 July 2018).
- Eurostat (2018f). Vaccination against influenza of population aged 65 and over. Luxembourg: Statistical Office of the European Union. (http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_ps_immu&lang=en, accessed 26 July 2018).
- Eurostat (2018g). Consumption of fruits and vegetables. Luxembourg: Statistical Office of the European Union. (<http://ec.europa.eu/eurostat/web/health/health-status-determinants/data/database>, accessed 26 July 2018).
- Eurostat (2018h). EU-SILC. Self-reported unmet needs for medical examination by sex, age, main reason declared and educational attainment level. Luxembourg: Statistical Office of the European Union. (http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_silc_14&lang=en, accessed 26 July 2018).
- FGÖ (2015a). Rahmenarbeitsprogramm 2017–2020. Vienna: Gesundheit Österreich GmbH.
- FGÖ (2015b). Jahresbericht 2015. Vienna: Gesundheit Österreich GmbH.
- FGÖ (2017a). YOLO. You only live once. Leb dein leben ohne rauch. Vienna: Fonds Gesundes Österreich/Gesundheit Österreich GmbH. (<http://www.yolo.at/>, accessed 26 July 2018).
- FGÖ (2017b). Gesundheitliche Chancengleichheit. Vienna: Fonds Gesundes Österreich/Gesundheit Österreich GmbH. (<http://www.fgoe.org/gesundheitsfoerderung/begriffe-und-theorien/gesundheitsliche-chancengleichheit>, accessed 26 July 2018).
- FH Krems (2017). Bachelorstudium Health Sciences. Krems: Karl Landsteiner Privatuniversität für Gesundheitswissenschaften. (<http://www.kl.ac.at/studium/bachelorstudium-health-sciences>, accessed 26 July 2018).
- Finanz-Verfassungsgesetz (1948). Bundesverfassungsgesetz über die Regelung der finanziellen Beziehungen zwischen dem Bund und den übrigen Gebietskörperschaften (Finanz-Verfassungsgesetz 1948 – F-VG 1948). BGBl. Nr. 45/1948. Last amendment: BGBl. I Nr. 51/2012.
- Finanzausgleichsgesetz (2017). Bundesgesetz, mit dem der Finanzausgleich für die Jahre 2017 bis 2021 geregelt wird und sonstige finanzausgleichsrechtliche Bestimmungen getroffen werden (Finanzausgleichsgesetz 2017 – FAG 2017). BGBl. I Nr. 116/2016.
- Fonds Gesundes Österreich (2017). Information für Antragsteller/innen von Projekten der Betrieblichen Gesundheitsförderung. Vienna: Fonds Gesundes Österreich.
- Forster R (2015). Gutachten zur Bürger- und Patientenbeteiligung im österreichischen Gesundheitswesen erstellt von Univ. Prof. (i.R.) Dr. Rudolf Forster im Auftrag der ARGE Selbsthilfe Österreich. Vienna: ARGE Selbsthilfe Österreich.
- Freiberuflichen Sozialversicherungsgesetz (1978). Bundesgesetz über die Sozialversicherung freiberuflich selbständig Erwerbstätiger (Freiberuflichen Sozialversicherungsgesetz – FSVG). BGBl. Nr. 624/1978. Last amendment: BGBl. I Nr. 162/2015.
- Fülöp G (2008). Morbiditätsbasierte Standort- und Kapazitätsplanung im Gesundheitswesen. In: Schönback, W, Blaas, W, Bröthaler, J eds. Sozioökonomie als multidisziplinärer Forschungsansatz. Vienna: Springer.

- Ganjezadeh-Rouhani A (2010). Business Intelligence im Gesundheitswesen. Soziale Sicherheit Juli/August.
- Gesundheits- und Krankenpflegegesetz (1997). Bundesgesetz, mit dem das Bundesgesetz über Gesundheits- und Krankenpflegeberufe (Gesundheits- und Krankenpflegegesetz – GuKG) erlassen wird, sowie das Krankenpflegegesetz, das Ausbildungsvorbehaltsgesetz und das Ärztegesetz 1984 geändert werden.
- Gesundheits- und Sozialbereich-Beihilfengesetz (1996). Bundesgesetz, mit dem Beihilfen im Gesundheits- und Sozialbereich geregelt werden (Gesundheits- und Sozialbereich-Beihilfengesetz – GSBG). BGBl. Nr. 746/1996. Last amendment: BGBl. I Nr. 17/2017.
- Gesundheitsberuferegister-Gesetz (2016). Bundesgesetz über die Registrierung von Gesundheitsberufen (Gesundheitsberuferegister-Gesetz – GBRG). BGBl. I Nr. 87/2016.
- Gewerbliches Selbständigen-Krankenversicherungsgesetz (1966). Bundesgesetz vom 14. Juli 1966 über die Krankenversicherung der in der gewerblichen Wirtschaft selbständig Erwerbstätigen (GSKVG). BGBl. Nr. 167/1966
- Gewerbliches Selbständigen-Pensionsversicherungsgesetz (1957). Bundesgesetz vom 18. Dezember 1957 über die Pensionsversicherung der in der gewerblichen Wirtschaft selbständig Erwerbstätigen (GSPVG). BGBl. Nr. 292/1957
- Gewerbliches Sozialversicherungsgesetz (1978). Bundesgesetz vom 11. Oktober 1978 über die Sozialversicherung der in der gewerblichen Wirtschaft selbständig Erwerbstätigen (GSVG). BGBl. Nr. 560/1978. Last amendment: BGBl. I Nr. 53/2017.
- GfK (2017). Bevölkerungsstudie – Gesundheit 2017. Eine Studie von GfK im Auftrag vom Hauptverband der Sozialversicherungsträger. Vienna: GfK, Growth from Knowledge.
- Gleichwelt S, Kern R, Lerchner M (2011). Sektorenübergreifende Patientenbefragung. Vienna: Bundesministerium für Gesundheit.
- GÖG (2010a). Nationale HTA-Strategie, Version 1.0, 2009. Vienna: Gesundheit Österreich GmbH, Bundesministerium für Gesundheit.
- GÖG (2010b). Austria: pharmaceutical country profile. Vienna: Gesundheit Österreich GmbH.
- GÖG (2012). Methodenhandbuch für Health Technology Assessment, Version 1.2012. Vienna: Gesundheit Österreich GmbH, Bundesministerium für Gesundheit.
- GÖG (2013). Österreichischer Strukturplan Gesundheit 2012 inklusive Großgeräteplan gemäß Beschluss der Bundesgesundheitskommission vom 23. November 2012 inkl. aktualisiertes Kapitel zur Rehabilitation gemäß Beschluss der B-ZK vom 28. Juni 2013. Vienna: Bundesministerium für Gesundheit.
- GÖG (2017a). Die Gesundheitsfolgenabschätzung (Health Impact Assessment) – ein Instrument zur Umsetzung einer gesundheitsförderlichen Gesamtpolitik. Vienna: Gesundheit Österreich GmbH. (<http://gfa.goeg.at/>, accessed 26 July 2018).
- GÖG (2017b). HTA-Guide [website]. Vienna: Gesundheit Österreich GmbH. (<http://hta-guide.biqq.at/>, accessed 26 July 2018).
- GÖG (2017c). ÖSG 2017 – Großgeräteplan (Tabellen zu Anhang 10), Stand 30 June 2017. Vienna: Gesundheit Österreich GmbH.
- GÖG (2017d). RSG-Monitoring Planungsstand 31 December 2016. Vienna: Bundesministerium für Gesundheit und Frauen.
- GÖG (2017e). Österreichischer Strukturplan Gesundheit 2017 inklusive Großgeräteplan gemäß Beschluss der Bundes-Zielsteuerungskommission vom 30. Juni 2017. Vienna: Bundesministerium für Gesundheit und Frauen.
- GÖG (2017f). Medizinproduktregister. Vienna: Bundesministerium für Arbeit, Soziales, Gesundheit und Konsumentenschutz. (<http://www.medizinproduktregister.at/de/english-version>, accessed 26 July 2018).
- GÖG/BMG (2012). Prozesshandbuch Hospiz- und Palliativeinrichtungen. Im Auftrag der Bundesgesundheitsagentur. Vienna: Bundesministerium für Gesundheit.
- Gönenç R, Hofmarcher MM, Wörgötter A (2011). Reforming Austria's highly regarded but costly health system. OECD Economics Department Working Papers, No. 895. Paris: OECD.

- GQG (2004). Bundesgesetz zur Qualität von Gesundheitsleistungen (Gesundheitsqualitätsgesetz – GQG). BGBl. I Nr. 179/2004.
- Griebler R, Winkler P, Gaiswinkler S, Delcour J, Juraszovich B, Nowotny M et al. (2017). Österreichischer Gesundheitsbericht 2016. Berichtszeitraum 2005–2014/15. Wien: Bundesministerium für Gesundheit und Frauen.
- Grillich L, Griebler U (2012). Prozessevaluation zum Pilotprojekt “Gesundheitsfolgenabschätzung des verpflichtenden Kindergartenjahres” im Auftrag von BMG, Land Steiermark und HVS. Krems: Donau Universität Krems. Department für Evidenzbasierte Medizin und Klinische Epidemiologie.
- Grossmann B, Schuster P (2017). Langzeitpflege in Österreich: Determinanten der staatlichen Kostenentwicklung. Vienna: Fiskalat.
- Gruber G (2017). Gesundheitsziele für Österreich. Erfahrungen aus einem “Gesundheit-in-allen-Politikfeldern-Prozess”. Soziale Sicherheit.5:235.
- Gruber G, Türschler E (2012). HTA und GFA (HIA) in Österreich – Gemeinsamkeiten und Unterschiede. GMS Health Technology Assessment.12:Doc02.
- Grundversorgungsgesetz (2005). Bundesgesetz, mit dem die Grundversorgung von Asylwerbern im Zulassungsverfahren und bestimmten anderen Fremden geregelt wird (Grundversorgungsgesetz – Bund 2005 – GVG-B 2005).
- GSÖ (2017). Themenbereich: Zahngesundheit für Volksschulen. Baden: Gesellschaft der Schulpfängerinnen und Schulpfänger Österreichs. (<http://www.schulaerzte.at/unsere-themen/zahngesundheit.html>, accessed 26 July 2018).
- GuKG-Novelle (2016). Bundesgesetz, mit dem das Gesundheits- und Krankenpflegegesetz, das Allgemeine Sozialversicherungsgesetz, das Berufsreifepfängerprüfungsgesetz und das Ärztegesetz 1998 geändert werden.
- Gyimesi M, Fülöp G, Ivansits S, Pochobradsky E, Stoppacher A, Kawalirek S et al. (2016). Rehabilitationsplan 2016. Vienna: Gesundheit Österreich GmbH.
- Habimana K, Bachner F, Bobek J, Ladurner J, Ostermann H (2015). Das österreichische Gesundheitswesen im internationalen Vergleich [The Austrian health care system, an international comparison]. Vienna: Bundesministerium für Gesundheit.
- Habimana K, Bobek J, Lepuschütz L, Rappold E, Ostermann H, Zuba M (forthcoming). Strengthening primary health care and innovating skill-mix in a fragmented decision-making environment: Austria. In: European Observatory for Health Systems and Policy ed. Patients, peers, professionals: Skill-mix innovations and developments in primary and chronic care settings. Brussels: European Observatory for Health Systems and Policy.
- Hausegger T, Hlebic D, Reidl C, Reiter A (2015). Evaluierung der betrieblichen Schiene von fit2work. Vienna: Prospect Research & Solution.
- Hebammengesetz (1925). Bundesgesetz vom 2. Juli 1925, betreffend die Regelung des Hebammenwesens.
- HLS-EU Consortium (2012). Comparative report of health literacy in eight EU member states. The European Health Literacy Survey HLS-EU. Maastricht: The European Health Literacy Project. (http://ec.europa.eu/chafea/documents/news/Comparative_report_on_health_literacy_in_eight_EU_member_states.pdf, accessed 26 July 2018).
- Hofmarcher M, Rack HM (2006). Austria: Health system review. Health Systems in Transition.8:275.
- Hofmarcher M, Quentin W (2013). Austria. Health system review. Health Systems in Transition.15(7):1– 291.
- Horvath I, Haas S, Knaller C, Sax G (2010). Health impact assessment. Konzept zur Etablierung von HIA in Österreich. Vienna: Gesundheit Österreich GmbH/ÖBIG.
- HVB (2006a). Richtlinien über den Ausgleich unterschiedlicher Strukturen 2006 (Strukturausgleichs-Richtlinien 2006, RStruktAusgl 2006) gemäß § 447b Abs. 3 ASVG. Vienna: Hauptverband der österreichischen Sozialversicherungsträger.
- HVB (2006b). Handbuch der österreichischen Sozialversicherung 2005. Vienna: Hauptverband der österreichischen Sozialversicherungsträger.

- HVB (2012). Die Organisation der österreichischen Sozialversicherung. Soziale Sicherheit.7–8:340–341.
- HVB (2016a). Leistungsrechtliche Werte in der Sozialversicherung 2016. Vienna: Hauptverband der österreichischen Sozialversicherungsträger.
- HVB (2016b). 2017: Neue Beträge in der Sozialversicherung. Presseausendung aktuell. Vienna: Hauptverband der österreichischen Sozialversicherungsträger.
- HVB (2016c). Statistisches Handbuch der österreichischen Sozialversicherung 2016. Vienna: Hauptverband der österreichischen Sozialversicherungsträger.
- HVB (2016d). Rezeptgebührenobergrenze. Vienna: Hauptverband der österreichischen Sozialversicherungsträger. (<https://www.sozialversicherung.at/cdscontent/?contentid=10007.748577>, accessed 27 July 2018).
- HVB (2017a). Presseinformation aktuell: Gleiche Leistung für gleiches Geld. Vienna: Hauptverband der österreichischen Sozialversicherungsträger. (<http://www.hauptverband.at/cdscontent/load?contentid=10008.645158&version=1507123047>, accessed 26 July 2018).
- HVB (2017b). Handbuch der österreichischen Sozialversicherung 2017. Vienna: Hauptverband der österreichischen Sozialversicherungsträger.
- HVB (2017c). Richtlinien. Vienna: Hauptverband der österreichischen Sozialversicherungsträger. (<http://www.hauptverband.at/portal27/hvbportal/content?contentid=10007.693754&viewmode=content>, accessed 26 July 2018).
- HVB (2017d). Alle Standorte stehen ab heute fest: Die Rehabilitationszentren für Kinder sind damit komplett – und Realität geworden. 22 July 2017. Vienna: Hauptverband der österreichischen Sozialversicherungsträger.
- HVB (2017e). Mehr Effizienz durch weniger Parallelgesetzgebung in den Sozialversicherungsgesetzen. Soziale Sicherheit.11:464–472.
- HVB (2017f). Well insured – Social security in Austria. Vienna: Wirtschaftsmuseum.
- HVB (2017g). Beitragsrechtliche Werte in der Sozialversicherung 2018. Stichtag: 1. Jänner 2018. Vienna: Hauptverband der österreichischen Sozialversicherungsträger.
- HVB (2017h). Leistungen der Krankenversicherung für Versicherte und selbst zu zahlende Angebote. Vienna: Hauptverband der österreichischen Sozialversicherungsträger.
- HVB (2017i). Statistisches handbuch der österreichischen Sozialversicherung 2017. Vienna: Hauptverband der Österreichischen Sozialversicherungsträger.
- HVB (2017j). Gesamtverträge. Vienna: Hauptverband der österreichischen Sozialversicherungsträger. (<http://www.hauptverband.at/portal27/hvbportal/content?contentid=10007.693774&viewmode=content>, accessed 26 July 2018).
- HVB (2017k). Die österreichische Sozialversicherung in Zahlen, 38. Ausgabe: März 2017. Vienna: Hauptverband der österreichischen Sozialversicherungsträger.
- HVB (2017l). Service-Entgelt (Gebühr für die e-card). Vienna: Hauptverband der österreichischen Sozialversicherungsträger. (<https://www.sozialversicherung.at/portal27/esvportal/content?contentid=10007.683980&viewmode=content>, accessed 26 July 2018).
- HVB (2017m). Heilbehelfe/Hilfsmittel: Rechnung einreichen. Vienna: Hauptverband der österreichischen Sozialversicherungsträger. (<https://www.sozialversicherung.at/portal27/esvportal/content/contentWindow?viewmode=content&contentid=10007.756093>, accessed 26 July 2018).
- HVB (2017n). Leistungsrechtliche Werte in der Sozialversicherung 2017. Vienna: Hauptverband der österreichischen Sozialversicherungsträger.
- HVB (2018a). Statistische Daten aus der Sozialversicherung. Versicherte, Pensionen, Renten. Vienna: Hauptverband der österreichischen Sozialversicherungsträger. (<https://www.sozialversicherung.at/portal27/esvportal/content?contentid=10007.683681&viewmode=content>, accessed 26 July 2018).
- HVB (2018b). Leistungsrechtliche Werte in der Sozialversicherung 2018. Stichtag 1. Jänner 2018. Hauptverband der österreichischen Sozialversicherungsträger.
- HVB (2018c). Ab 1. Jänner ist es fix: Jeder Kassenversicherte hat Anspruch auf kurze

- Wartezeiten bei CT- und MR-Untersuchungen. Vienna: Hauptverband der österreichischen Sozialversicherungsträger.
- HVB (2018d). Verwaltungskörper / Organigramm und Mitglieder. Vienna: Hauptverband der österreichischen Sozialversicherungsträger. (<http://www.hauptverband.at/portal27/hvbportal/content?contentid=10007.693855&viewmode=content>, accessed 26 July 2018).
- HVB (2018e). Elektronischer Erstattungskodex. Vienna: Hauptverband der österreichischen Sozialversicherungsträger. (<http://www.hauptverband.at/portal27/hvbportal/content?contentid=10007.694354&viewmode=content>, accessed 26 July 2018).
- HVB (2018f). Geringfügigkeit. Vienna: Hauptverband der österreichischen Sozialversicherungsträger. (<https://www.sozialversicherung.at/portal27/esvportal/content?contentid=10007.683965&viewmode=content>, accessed 26 July 2018).
- IHME (2017). Austria. Vienna: Institute for Health Metrics and Evaluation. (<http://www.healthdata.org/austria>, accessed 26 July 2018).
- jku (2018). Studiere Medizin an der JKU!. Linz: Johannes Kepler Universität. (<https://www.jku.at/studium/themenbereiche/medizin/>, accessed 26 July 2018).
- Jung R (2016). Anteil pauschaler Vergütungen in der Allgemeinmedizin. Vienna: Hauptverband der österreichischen Sozialversicherungsträger.
- Juraszovich B, Sax G, Rappold E, Pfabigan D, Stewig F (2015). Demenzstrategie: Gut leben mit Demenz (Abschlussbericht). Vienna: Gesundheit Österreich GmbH.
- KAKuG (1957). Bundesgesetz über Krankenanstalten und Kuranstalten. BGBl. Nr. 1/1957. Last amendment: BGBl. I Nr. 37/2018.
- Klimont J, Klotz J (2016). Lebenserwartung in Gesundheit nach Bundesland, Geburtsland und Schulbildung. Auswertungen aus der Österreichischen Gesundheitsbefragung 2014. Statistische Nachrichten. 71(9):664–669.
- Korsatko S (2014). Allgemeinmedizin in der Steiermark: Netzwerke niedergelassener Hausärzte. Evaluierung zur Primärversorgung 2014. Graz: Medizinische Universität Graz.
- Krankenkassen-Strukturfondsgesetz (2009). Bundesgesetz über einen Kassenstrukturfonds für die Gebietskrankenkassen (Krankenkassen-Strukturfondsgesetz). BGBl. I Nr. 52/2009. Last amendment: BGBl. I Nr. 118/2015.
- Kringos DS, Boerma GW, Hutchinson A, Saltman RB (2015). Building primary care in a changing Europe. Copenhagen: WHO Regional Office for Europe.
- Kumpunen S, Trigg L, Rodrigues R (2014). Public reporting in health and long-term care to facilitate provider choice, Policy Summary 13. Copenhagen: World Health Organization (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies).
- Ladurner J, Gergler M, Holland WW, Mossialos E, Merkur S, Stewart S et al. (2011). Public health in Austria. An analysis of the status of public health. Copenhagen: World Health Organization (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies).
- Langebner T (2017). Zahlen und Fakten. Die österreichische Krankenhauspharmazie in Zahlen und Fakten. Vienna: Arbeitsgemeinschaft Österreichischer Krankenhausapotheker. (<http://www.aahp.at/krankenhauspharmazie>, accessed 26 July 2018).
- Leichsenring K (2017). The Austrian Welfare State System: with special reference to the long-term care system. In: Aspalter, C ed. The Routledge international handbook to welfare state systems. Milton Park (UK): Routledge.
- Leichsenring K, Lamontagne-Goodwin F, Schmidt AE, Rodrigues R, Ruppe G (2014). Performance measurement in long-term care in Austria. In: Mor V, Leone T, Maresso A eds. The challenges in regulating long-term care quality: an international comparison. Cambridge: Cambridge University Press.
- Leuprecht E, Lerchner M, Neubauer S, Kern R (2016a). Sektorenübergreifende Patientenbefragung: Expertenbericht 2015. Vienna: Bundesministerium für Gesundheit und Frauen.

- Leuprecht E, Lerchner M, Neubauer S, Kern R (2016b). Sektorenübergreifende Patientenbefragung. Ergebnisbericht 2015. Beschlossen durch die Bundes-Zielsteuerungskommission im April 2016.
- LSE Consulting (2017). Efficiency review of Austria's social insurance and healthcare system. Volume 1 – International Comparisons and Policy Options. London: London School of Economics and Political Science (LSE Health).
- Mandlz G (2015). Arbeitsbehelf Erstattungskodex (Stand 14 January 2015). Vienna: Hauptverband der österreichischen Sozialversicherungsträger.
- Mantsch S, Petersen P, Wild C (2016). Pharma: Offenlegung geldwerter Leistungen in Österreich 2015. Rapid Assessment 007d. Vienna: Ludwig Boltzmann Institut für Health Technology Assessment. (<http://eprints.hta.lbg.ac.at/1107/>, accessed 7 August 2018).
- Maternal Mortality Estimation Inter-Agency Group (2016). Maternal mortality in 1990–2015. Maternal Mortality Estimation Inter-Agency Group. Austria. WHO, UNICEF, UNFPA, World Bank Group, and United Nations Population Division. Geneva: World Health Organization.
- Mätzke M, Stöger H (2015). Austria. In: Fierlbeck K, Palley HA eds. Comparative health care federalism. Farnham, UK/Burlington, USA: Ashgate Publishing Company.
- Medizinproduktegesetz (2014). Bundesgesetz betreffend Medizinprodukte (Medizinproduktegesetz). BGBl. I, Nr. 32/2014.
- medizinstudieren (2018). Studienplätze. Vienna: Medizinische Universität Wien. (<http://www.medicinstudieren.at/allgemeine-informationen/studienplaetze-platzvergabe/>, accessed 26 July 2018).
- Miko H-R (2017). Medizinerquote darf bleiben. 17 May 2017. Vienna: Vertretung der EU-Kommission in Österreich. (https://www.ots.at/presseaussendung/OTS_20170517_OTS0154/medizinerquote-darf-bleiben, accessed 26 July 2018).
- Mossialos E, Allin S, Ladurner J (2006). Framework performance assessment. London: London School of Economics.
- Nagel R (2015). Aktuelle Entwicklungen und eine Zwischenbilanz der 24-Stunden-Betreuung nach 7 Jahren. Pflegekongress 2015, 5–6 November 2015, Vienna.
- Nemeth C, Peltari L (2016). Pädiatrische Hospiz- und Palliativversorgung in Österreich, Deutschland und Schweiz. Pädiatrie & Pädologie. 51:244–248.
- Neutralitätsgesetz (1955). Bundesverfassungsgesetz vom 26. Oktober 1955 über die Neutralität Österreichs. BGBl. Nr. 211/1955.
- NZFH (2017a). Frühe Hilfen Österreich. Vienna: Nationales Zentrum Frühe Hilfen/ Gesundheit Österreich GmbH. (<http://www.fruehehilfen.at/de/Fruehe-Hilfen/Fruehe-Hilfen-Oesterreich.htm>, accessed 1 December 2017).
- NZFH (2017b). Frühe Hilfen in Österreich. Vienna: Nationales Zentrum Frühe Hilfen/ Gesundheit Österreich GmbH. (<http://www.fruehehilfen.at/>, accessed 26 June 2017).
- ÖÄK (2012). Außerordentliche Vollversammlung der Österreichischen Ärztekammer Protestkonvent der Ärztinnen und Ärzte “Gesundheitsreform 2012”. Vienna: Österreichische Ärztekammer. (<http://www.aerztekammer.at/documents/10431/1693672/Handout+%C3%84rztekonvent>, accessed 26 July 2018).
- ÖÄK (2015). Ärzteliste der Österreichischen Ärztekammer. Vienna: Österreichische Ärztekammer.
- ÖÄK (2017a). Ärzteliste der Österreichischen Ärztekammer. Vienna: Österreichische Ärztekammer.
- ÖÄK (2017b). Apotheke in Zahlen 2017. Vienna: Österreichische Apothekerkammer.
- ÖÄK, BMG (2012). Verordnung der Österreichischen Ärztekammer zur Qualitätssicherung der ärztlichen Versorgung durch niedergelassene Ärzte und Ärztinnen sowie Gruppenpraxen (Qualitätssicherungsverordnung 2012 – QS-VO 2012) in der Fassung der Verordnung des Bundesministers für Gesundheit. BGBl. II Nr. 452/2011.
- OECD (2015). Changing patterns in the international migration of doctors and nurses to OECD countries. In: OECD ed. International migration outlook 2015. Paris: OECD Publishing.

- OECD (2017a). OECD database. Health care utilisation [online database]. Paris: OECD. (https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_PROC, accessed 26 July 2018).
- OECD (2017b). Health at a glance 2017: OECD indicators. Paris: OECD Publishing.
- OECD (2017c). OECD database. Health expenditure and financing [online database]. Paris: OECD. (<https://stats.oecd.org/Index.aspx?DataSetCode=SHA>, accessed 26 July 2018).
- OECD (2017d). Database of the OECD. Health care resources. Paris: OECD. (https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_REAC, accessed 26 July 2018).
- OECD (2017e). OECD database. Health status. Life expectancy [online database]. Paris: OECD. (http://stats.oecd.org/index.aspx?DataSetCode=HEALTH_STAT, accessed 26 July 2018).
- OECD (2017f). OECD database. Health status. Mortality [online database]. Paris: OECD. (http://stats.oecd.org/index.aspx?DataSetCode=HEALTH_STAT, accessed 26 July 2018).
- OECD (2017g). OECD database. Health care resources. Physicians by categories [online database]. Paris: OECD. (https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_REAC, accessed 26 July 2018).
- OECD (2017h). OECD database. Health care resources. Dentists [online database]. Paris: OECD. (https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_REAC, accessed 26 July 2018).
- OECD (2017i). OECD database. Non-medical determinants of health: Alcohol consumption [online database]. Paris: OECD. (https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_LVNG, accessed 26 July 2018).
- OECD (2017j). OECD database. Health workforce migration. Foreign-trained doctors by country of origin – Annual inflow [online database]. Paris: OECD. (<http://stats.oecd.org/index.aspx?queryid=68336>, accessed 10 October 2017).
- OECD (2017k). OECD database. Health workforce migration. Foreign-trained doctors by country of origin – Stock [online database]. Paris: OECD. (<http://stats.oecd.org/index.aspx?queryid=68336>, accessed 10 October 2017).
- OECD (2017l). OECD database. Health care quality indicators [online database]. Paris: OECD. (https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_HCQI, accessed 26 July 2018).
- OECD (2017m). OECD database. Health expenditures and financing. Pharmaceutical expenditures. Paris: OECD. (<https://stats.oecd.org/Index.aspx?DataSetCode=SHA>, accessed 26 July 2018).
- OECD (2017n). OECD database. Share of cataract surgeries carried out as day cases, 2000 and 2015 (or nearest year). Paris: OECD. (http://stats.oecd.org/index.aspx?DataSetCode=HEALTH_STAT, accessed 26 July 2018).
- OECD (2017o). Health at a glance 2017: OECD indicators. How does Austria compare? Paris: OECD Publishing.
- OECD (2017p). OECD database. Health status. Maternal and infant mortality. Paris: OECD. (http://stats.oecd.org/index.aspx?DataSetCode=HEALTH_STAT, accessed 26 July 2018).
- OECD (2018a). OECD database. Health expenditure and financing. Paris: OECD. (<https://stats.oecd.org/Index.aspx?DataSetCode=SHA>, accessed 8 May 2018).
- OECD (2018b). OECD database. Health expenditure and financing. Paris: OECD. (<https://stats.oecd.org/Index.aspx?DataSetCode=SHA>, accessed 16 January 2018).
- OECD (2018c). OECD database. Health care utilisation. Paris: OECD. (https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_PROC, accessed 26 July 2018).
- OECD (2018d). OECD database. Health status. Mortality. Paris: OECD. (http://stats.oecd.org/index.aspx?DataSetCode=HEALTH_STAT, accessed 13 March 2018).
- OECD, European Observatory on Health Systems and Policies (2017). Austria: Country health profile 2017, State of health in the EU. Paris: OECD.
- OECD, Eurostat, WHO (2011). A system of health accounts. Paris: OECD Publishing.
- OECD/EU (2016). Health at a glance: Europe 2016 – State of health in the EU Cycle. Paris: OECD Publishing.

- oegkv (2017a). Fachhochschulen. Vienna: Österreichischer Gesundheits- und Krankenpflegeverband. (<https://www.oegkv.at/aus-und-weiterbildung/ausbildung/fachhochschulen/>, accessed 26 July 2018).
- oegkv (2017b). Schulen für Gesundheits- und Krankenpflege. Vienna: Österreichischer Gesundheits- und Krankenpflegeverband. (<https://www.oegkv.at/aus-und-weiterbildung/ausbildung/schulen-fuer-gesundheits-und-krankenpflege/>, accessed 26 July 2018).
- oegkv (2017c). Fort- und Weiterbildung. Vienna: Österreichischer Gesundheits- und Krankenpflegeverband. (<https://www.oegkv.at/aus-und-weiterbildung/fort-und-weiterbildung/>, accessed 26 July 2018).
- ÖPGK (2017a). Toolbox 2015 zum Wiener Konzept Gesundheitskompetenter Krankenbehandlungsorganisationen. Vienna: Österreichische Plattform Gesundheitskompetenz/Gesundheit Österreich GmbH. (https://oepgk.at/_wissenscenter/toolbox-2015-wkgkko/, accessed 26 June 2017).
- ÖPGK (2017b). Hintergrund & Zielsetzung. Vienna: Österreichische Plattform Gesundheitskompetenz. (<https://oepgk.at/die-oepgk/hintergrund-zielsetzung/>, accessed 26 July 2018).
- Österle A, Bauer G (2012). Home care in Austria: the interplay of family orientation, cash-for-care and migrant care. *Health & Social Care in the Community*.20:265–273.
- Ostermann H (2017). Zielsteuerung 2.0 – Alter Wein in neuen Schläuchen oder Motor für den Systemwandel: Herausforderungen, Chancen und Potenziale der Gesundheitsreform. *Gesundheit Österreich GmbH*. Vienna: E-Health Forum (conference), 16 November 2017.
- Österreichische Akademie der Ärzte (2017). Ärztliche Fort- und Weiterbildung in Österreich. Bericht 2017. Vienna: Österreichische Ärztekammer and Österreichische Akademie der Ärzte GmbH.
- Österreichische Arzneitaxe (1962). Verordnung des Bundesministeriums für soziale Verwaltung vom 10. April 1962 womit eine Österreichische Arzneitaxe herausgegeben wird.
- Österreichischer Stabilitätspakt (2012). Vereinbarung zwischen dem Bund, den Ländern und den Gemeinden über einen Österreichischen Stabilitätspakt 2012 – ÖStP 2012. BGBl. I Nr. 30/2013. Vienna.
- Panteli D, Arickx F, Cleemput I, Dedet G, Eckhardt H, Fogarty E et al. (2016). Pharmaceutical regulation in 15 European countries: Review. *Health Systems in Transition*.18(5):1–118.
- Patientencharta (2001). Vereinbarung zur Sicherstellung der Patientenrechte (Patientencharta). LGBl. Nr. 89/2001.
- PatVG (2006). Bundesgesetz über Patientenverfügungen (Patientenverfügungs-Gesetz – PatVG).
- Pelinka A, Winter-Ebmer R, Zohnhöfer R (2016). Austria Report. Sustainable Governance Indicators 2016. Gütersloh: Bertelsmann Stiftung.
- Pelttari L, Nemeth C (2014). Hospiz und Palliative Care in Österreich – Facts & Figures (erstellt für die Sitzung der Enquete-Kommission zum Thema “Würde am Ende des Lebens” am 16. Dezember 2014). Vienna: Hospiz Österreich.
- Pelttari L, Pissarek AH (2013). European insight, Hospiz Österreich: advancing end-of-life care in Austria. *Eur J Palliat Care*.20:102.
- Pelttari L, Pissarek AH, Zottele P (2017). Hospiz- und Palliative Care in Österreich. Vienna: Hospiz Österreich.
- Pfeiffer K (2007). Empfehlungen für eine österreichische e-Health Strategie. Eine Informations- und Kommunikationsstrategie für ein modernes österreichisches Gesundheitswesen. Vienna: e-Health Initiative.
- Pflegefondsgesetz (2011). Bundesgesetz, mit dem ein Pflegefonds eingerichtet und ein Zweckzuschuss an die Länder zur Sicherung und zum bedarfsgerechten Aus- und Aufbau des Betreuungs- und Pflegedienstleistungsangebotes in der Langzeitpflege für die Jahre 2011 bis 2021 gewährt wird (Pflegefondsgesetz – PFG). BGBl. I Nr. 57/2011. Last amendment: BGBl. I Nr. 22/2017.
- Pharmazeutische Gehaltskasse (2017). Number of hospital pharmacies. Unpublished. Vienna: Pharmazeutische Gehaltskasse.

- Pharmazeutische Gehaltskasse (2018). Pharmazeutische Gehaltskasse für Österreich [website]. Vienna: Pharmazeutische Gehaltskasse. (<https://www.gehaltskasse.at/>, accessed 26 July 2018).
- Pharmig (2016). Facts & Figures 2016: Medicinal products and health care in Austria. Vienna: Association of the Austrian Pharmaceutical Industry.
- Pharmig (2017). Facts & Figures 2017. Medicinal products and health care in Austria. Vienna: Association of the Austrian Pharmaceutical Industry.
- Philippi T (2015). The Electronic Health Record (ELGA) in Austria. Vienna: ELGA GmbH. (https://www.bmgf.gv.at/cms/home/attachments/1/7/2/CH1538/CMS1458292318057/1511_elga_the_electronic_health_record_in_austria.pdf, accessed 26 July 2018).
- pmu (2017). Studium der Humanmedizin. Salzburg: Paracelsus Medizinische Privatuniversität. (<http://www.pmu.ac.at/humanmedizin.html>, accessed 26 July 2018).
- Pochobradsky E, Bergmann F, Brix-Samoilenko H, Erkamp H, Laub R (2005). Situation pflegender Angehöriger (Endbericht). Vienna: Österreichisches Bundesinstitut für Gesundheit/Bundesministerium für soziale Sicherheit, Generationen und Konsumentenschutz.
- Primärversorgungsgesetz (2017). Bundesgesetz, mit dem ein Bundesgesetz über die Primärversorgung in Primärversorgungseinheiten (Primärversorgungsgesetz 2017 – PVG 2017) erlassen und das Gesundheits-Zielsteuerungsgesetz, das Allgemeine Sozialversicherungsgesetz, das Gewerbliche Sozialversicherungsgesetz, das Bauern-Sozialversicherungsgesetz, das Beamten-Kranken- und Unfallversicherungsgesetz und das Unterbringungsgesetz geändert werden (Gesundheitsreformumsetzungsgesetz 2017 – GRUG 2017). Vienna: National Council.
- Pruckner G, Hummer M (2013). Fördern private Zuzahlungen im Gesundheitswesen die Zweiklassenmedizin? Schwerpunktthema Private Mittel im Gesundheitssystem. Zeitschrift für Gesundheitspolitik.3:37–62.
- PsyOnline (2018). Psychotherapie auf Krankenschein. Vienna: PsyOnline. (<https://www.psyonline.at/contents/595/psychotherapie-auf-krankenschein>, accessed 26 July 2018).
- Rainer L, Theurl E (2015). Zur Entwicklung der Pflegegeldausgaben in Österreich: Eine empirische Bestandsaufnahme. Wirtschaft und Gesellschaft.41:565–592.
- Ramelow D, Griebler R, Hofmann F, Unterweger K, Mager U, Felder-Puig O et al. (2011). Gesundheit und Gesundheitsverhalten von österreichischen Schülern und Schülerinnen. Ergebnisse des WHO-HBSC-Survey 2010. Vienna: Bundesministerium für Gesundheit.
- Ramelow D, Teutsch F, Hofmann F, Felder-Puig O (2015). Gesundheit und Gesundheitsverhalten von österreichischen Schülern und Schülerinnen. Ergebnisse des WHO-HBSC-Survey 2014. Vienna: Bundesministerium für Gesundheit und Frauen.
- Rappold E, Juraszovich B, Pochobradsky E, Gyimesi M (2017). Pflegepersonalbedarfsprognose Vorarlberg. Vienna: Gesundheit Österreich GmbH.
- Regulation 2004/726/EC Regulation (EC) No 726/2004 of the European Parliament and of the Council of 31 March 2004 laying down Community procedures for the authorisation and supervision of medicinal products for human and veterinary use and establishing a European Medicines Agency.
- Regulation 2016/679/EU Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).
- Regulation 2017/745/EU Regulation (EU) 2017/745 of the European Parliament and of the Council of 5 April 2017 on medical devices, amending Directive 2001/83/EC, Regulation (EC) No 178/2002 and Regulation (EC) No 1223/2009 and repealing Council Directives 90/385/EEC and 93/42/EEC.
- Regulation 2017/746/EC Regulation (EU) 2017/746 of the European Parliament and of the Council of 5 April 2017 on in vitro diagnostic medical devices and repealing Directive 98/79/EC and Commission Decision 2010/227/EU.

- Reichssanitätsgesetz (1870). Gesetz vom 30. April 1870, betreffend die Organisation des öffentlichen Sanitätsdienstes. RGBl. Nr. 68/1870.
- Reisinger A (2012). Rettungsdienst in Österreich. Herausforderungen an Ausbildung und strukturelle Entwicklung. Linz: Masterarbeit, Body & Health Academy GmbH.
- Reisner C (2010). Die neue Ärzte-GmbH: Berufsrechtliche, sozialversicherungsrechtlich und steuerrechtliche Aspekte. *Consilium*.11/10:26–27.
- Reiter D, Fülöp G, Gyimesi M, Nemeth C (2012). Rehabilitationsplan 2012. Vienna: Gesundheit Österreich GmbH.
- Rezeptpflichtgesetz (1972). Bundesgesetz vom 25. Oktober 1972 über die Abgabe von Arzneimitteln auf Grund ärztlicher Verschreibung (Rezeptpflichtgesetz).
- Riedel M, Kraus M (2010). The long-term care system for the elderly in Austria. ENEPRI Research Report No 69. Brussels: Centre for European Policy Studies.
- Rodrigues R (2010). Work package 6: Governance and finance (Austrian national report). INTERLINKS. Vienna: Health systems and long-term care for older people in Europe – Modelling the INTERfaces and LINKS between prevention, rehabilitation, quality of services and informal care.
- Rodrigues R, Huber M, Lamura G eds. (2012). Facts and figures on healthy ageing and long-term care. Vienna: European Centre for Social Welfare Policy and Research.
- Rodrigues R, Trigg LJ, Schmidt AE, Leichsenring K (2014). The public gets what the public wants: experiences of public reporting in long-term care in Europe. *Health Pol.*116:84–94.
- Rodrigues R, Ilinca S, Schmidt AE (2017). Income-rich and wealth-poor? The impact of measures of socio-economic status in the analysis of the distribution of long-term care use among older people. *Health Econom.* 27(3):1–10.
- RÖV (2005). Richtlinien über die ökonomische Verschreibweise von Heilmitteln und Heilbehelfen. Hauptverband der österreichischen Sozialversicherungsträger. Vienna: Hauptverband der österreichischen Sozialversicherungsträger.
- Sachwalterrechts-Änderungsgesetz (2006). Sachwalterrechts-Änderungsgesetz 2006 – SWRÄG.
- Sanwald A, Theurl E (2015). Out-of-pocket payments in the Austrian healthcare system – a distributional analysis. *Int J Equity Health.*14:94.
- Sanwald A, Theurl E (2016). Out-of-pocket expenditure by private households for dental services – empirical evidence from Austria. *Health Econom Rev.*6:10.
- Sanwald A, Theurl E (2017). Out-of-pocket expenditures for pharmaceuticals: lessons from the Austrian household budget survey. *Eur J Health Econ.*18:435–447.
- Schmidt AE, Winkelmann J, Rodrigues R, Leichsenring K (2015). Lessons for regulating informal markets and implications for quality assurance – the case of migrant care workers in Austria. *Ageing & Society.*36:741–763.
- Schmidt AE, Fuchs M, Rodrigues R (2016). Juggling family and work: Leaves from work to care informally for frail or sick family members – an international perspective. Policy Brief. Vienna: European Centre for Social Welfare Policy and Research.
- Schmutterer I, Delcour J, Griebler R (2017). Österreichischer Diabetesbericht 2017. Wien: Bundesministerium für Gesundheit und Frauen.
- Schneider U, Österle A, Schober D, Schober C (2006). Die Kosten der Pflege in Österreich: Ausgabenstrukturen und Finanzierung. Vienna: Vienna University of Economics and Business Administration.
- Schulunterrichtsgesetz (1986). Bundesgesetz über die Ordnung von Unterricht und Erziehung in den im Schulorganisationsgesetz geregelten Schulen (Schulunterrichtsgesetz – SchUG). BGBl. Nr. 472/1986.
- sfu (2017). Aufnahmeverfahren Bachelor-Studiengang Humanmedizin SFU MED. Wien: Sigmund Freud Privatuniversität. (<https://med.sfu.ac.at/de/aufnahmeverfahren-med>, accessed 27 July 2018).
- Sommersguter-Reichmann M, Stepan A (2017). Hospital physician payment mechanisms in Austria: do they provide gateways to institutional corruption? *Health Econom Rev.*7:11.

- Sozialversicherungs-Chipkarten Betriebs- und Errichtungsgesellschaft m.b.H. (2017). The Austrian e-card System. Vienna: Sozialversicherungs-Chipkarten Betriebs- und Errichtungsgesellschaft m.b.H. (<http://www.chipkarte.at/portal27/ecardportal/content?contentid=10007.678587&viewmode=content> , accessed 27 July 2018).
- Sozialversicherungsüberleitungsgesetz (1947). Bundesgesetz vom 12. Juni 1947 über die Überleitung zum österreichischen Sozialversicherungsrecht (Sozialversicherungsüberleitungsgesetz – SV-ÜG).
- Spak C (2015). Jahresbericht 2015. AmberMed. Vienna: Ambulant-medizinische Versorgung, soziale Beratung und Medikamentenhilfe für Menschen ohne Versicherungsschutz.
- Staatsvertrag (1955). Staatsvertrag betreffend die Wiederherstellung eines unabhängigen und demokratischen Österreich. BGBl. Nr. 152/1955. Last amendment: BGBl. I Nr. 2/2008.
- Statistics Austria (2014). Die Österreichische Gesundheitsbefragung 2014 (ATHIS). Vienna: Statistik Austria. (https://www.statistik.at/web_de/frageboegen/private_haushalte/gesundheitsbefragung/index.html, accessed 26 July 2018).
- Statistics Austria (2015). Österreichische Gesundheitsbefragung 2014: Hauptergebnisse des Austrian Health Interview Survey (ATHIS) und methodische Dokumentation. Vienna: Statistik Austria.
- Statistics Austria (2016a). Soziodemographische und sozioökonomische Determinanten von Gesundheit. Auswertungen der Daten des Austrian Health Interview Survey (ATHIS 2014) zu Kindern, Jugendlichen und Erwachsenen. Vienna: Bundesministerium für Gesundheit und Frauen, Statistik Austria.
- Statistics Austria (2016b). Chronische Krankheiten und Gesundheitsprobleme mit ärztlicher Diagnose. Gesundheitsbefragung 2014. – Bevölkerung in Privathaushalten im Alter von 15 und mehr Jahren. – Hochgerechnete Zahlen. Erstellt am 18 October 2016.
- Statistics Austria (2016c). Internetnutzerinnen und Internetnutzer 2016. Vienna: Statistik Austria. (http://www.statistik.at/wcm/idc/idcplg?IdcService=GET_NATIVE_FILE&RevisionSelectionMethod=LatestReleased&dDocName=073636, accessed 26 July 2018).
- Statistics Austria (2016d). Personen mit Internetnutzung für private Zwecke 2016. Vienna: Statistik Austria. (http://www.statistik.at/wcm/idc/idcplg?IdcService=GET_NATIVE_FILE&RevisionSelectionMethod=LatestReleased&dDocName=024571, accessed 26 July 2018).
- Statistics Austria (2017a). Lebenserwartung 2014 nach subjektivem Gesundheitszustand und höchster abgeschlossener Ausbildung. Vienna: Statistik Austria. (http://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/gesundheit/gesundheitszustand/lebenserwartung_in_gesundheit/041865.html, accessed 26 July 2018).
- Statistics Austria (2017b). Jahrbuch der Gesundheitsstatistik 2016. Vienna: Statistik Austria.
- Statistics Austria (2017c). Hebammen 2016 in Berufsausübung. Vienna: Statistik Austria. (http://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/gesundheit/gesundheitsversorgung/personal_im_gesundheitswesen/022356.html, accessed 26 July 2018).
- Statistics Austria (2017d). Personal in Krankenanstalten 2016 nach Fachrichtungen, Geschlecht und Bundesländern. Vienna: Statistik Austria.
- Statistics Austria (2017e). Entwicklung der Krebsprävalenz im Zeitverlauf, Österreich ab 2000. Österreichisches Krebsregister (Stand 15 November 2016) und Todesursachenstatistik. Erstellt am 28 November 2016. 1) Personen mit malignen invasiven Tumoren (Zählung exkl. Mehrfachtumoren). Vienna: Statistik Austria.
- Statistics Austria (2017f). Ärzte und Ärztinnen seit 1960 absolut und auf 100.000 Einwohner. Vienna: Statistik Austria. (http://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/gesundheit/gesundheitsversorgung/personal_im_gesundheitswesen/022350.html, accessed 26 July 2018).
- Statistics Austria (2017g). Bevölkerung mit Migrationshintergrund seit 2008. Vienna: Statistik Austria. (http://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/bevoelkerung/bevoelkerungsstruktur/bevoelkerung_nach_migrationshintergrund/069443.html, accessed 26 July 2018).

- Statistics Austria (2017h). Bevölkerung. Vienna: Statistik Austria. (http://statistik.at/web_de/statistiken/menschen_und_gesellschaft/bevoelkerung/index.html, accessed 26 July 2018).
- Statistics Austria (2017i). Öffentliche Finanzen 2016: Öffentliches Defizit 1,6%, öffentlicher Schuldenstand 84,6% des BIP. Pressemitteilung: 11.505–065/17. Vienna: Statistik Austria.
- Statistics Austria (2017j). Gestorbene nach ausgewählten Merkmalen, Lebenserwartung und Säuglingssterblichkeit seit 2006. Vienna: Statistik Austria. (http://statistik.at/web_de/statistiken/menschen_und_gesellschaft/bevoelkerung/gestorbene/index.html), accessed 27 July 2018).
- Statistics Austria (2017k). Care services. Vienna: Statistik Austria. (http://www.statistik.at/web_en/statistics/PeopleSociety/social_statistics/social_benefits_at_laender_level/care_services/index.html, accessed 26 July 2018).
- Statistics Austria (2017l). Lebenserwartung bei der Geburt 2016 nach regionalen Gliederungen (16 June 2017). Vienna: Statistik Austria.
- Statistics Austria (2017m). Bundespflegegeld. Vienna: Statistik Austria. (http://www.statistik-austria.at/web_de/statistiken/menschen_und_gesellschaft/soziales/sozialleistungen_auf_bundesebene/bundespflegegeld/index.html, accessed 26 July 2018).
- Statistics Austria (2017n). Öffentlicher Schuldenstand. Vienna: Statistik Austria. (http://www.statistik.at/web_de/statistiken/wirtschaft/oeffentliche_finanzen_und_steuern/maastricht-indikatoren/oeffentlicher_schuldenstand/index.html, accessed 26 July 2018).
- Statistics Austria (2017o). Mikrozensus-Arbeitskräfteerhebung Jahresdaten (Q) Wirtschaftsaktivität (ÖNACE 2008) nach Jahr nach Erwerbsstatus (ILO). Vienna: STATcube – Statistische Datenbank von Statistik Austria.
- Statistics Austria (2017p). Malignome, insgesamt (C00–C97, ohne C44) – Krebsmortalität (Sterbefälle pro Jahr), Österreich ab 1983. Vienna: Statistik Austria. (http://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/gesundheit/krebserkrankungen/krebs_im_ueberblick/index.html, accessed 26 July 2018).
- Statistics Austria (2017q). Demographische Indikatoren – erweiterte Zeitreihen ab 1961 für Österreich. Vienna: Statistik Austria. (http://statistik.at/web_de/statistiken/menschen_und_gesellschaft/bevoelkerung/demographische_indikatoren/index.html, accessed 27 July 2018).
- Statistics Austria (2017r). Malignome, insgesamt (C00–C97, ohne C44) – Krebsinzidenz (Neuerkrankungen pro Jahr), Österreich ab 1983. Vienna: Statistik Austria. (http://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/gesundheit/krebserkrankungen/krebs_im_ueberblick/index.html, accessed 26 July 2018).
- Statistics Austria (2017s). Chronische Krankheiten und Gesundheitsprobleme 2014. Vienna: Statistik Austria. (http://statistik.at/web_de/statistiken/menschen_und_gesellschaft/gesundheit/gesundheitszustand/chronische_krankheiten/index.html, accessed 26 July 2018).
- Statistics Austria (2017t). Überblick – Gesundheitsausgaben in Österreich laut System of Health Accounts (SHA) 1) 1990 – 2015, in Mio. Euro. Vienna: Statistik Austria. (http://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/gesundheit/gesundheitsausgaben/index.html, accessed 26 July 2018).
- Statistics Austria (2017u). Geborene nach ausgewählten demografischen und medizinischen Merkmalen seit 2006. Vienna: Statistik Austria. (http://statistik.at/web_de/statistiken/menschen_und_gesellschaft/bevoelkerung/geborene/index.html, accessed 26 July 2018).
- Statistics Austria (2017v). Todesursachen gesamt. Aktuelle Jahresergebnisse. Vienna: Statistik Austria. (http://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/gesundheit/todesursachen/todesursachen_im_ueberblick/index.html, accessed 26 July 2018).
- Statistics Austria (2017w). Current expenditure on health care by function, providers and financing schemes in Austria, 2015 (in million euros). Vienna: Statistik Austria. (http://www.statistik.at/web_en/statistics/PeopleSociety/health/health_expenditure/index.htm, accessed 26 July 2018).
- Statistics Austria (2017x). Krankenstandsfälle und -tage nach Alter und Geschlecht seit 1995. Vienna: Statistik Austria. (http://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/gesundheitszustand/krankheitsstand/index.html, accessed 26 July 2018).

- [gesellschaft/gesundheit/gesundheitszustand/krankenstandstage/index.html](#), accessed 26 July 2018).
- Statistics Austria (2018a). Todesursachenstatistik 1980–2016. Vienna: Statistik Austria. (http://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/gesundheit/todesursachen/todesursachen_im_ueberblick/index.html, accessed 26 July 2018).
- Statistics Austria (2018b). Arbeitsmarktstatistiken 2016: Detailergebnisse C Erwerbspersonen und D Erwerbstätigkeit. Vienna: Statistik Austria. (http://www.statistik.at/wcm/idc/idcplg?IdcService=GET_NATIVE_FILE&RevisionSelectionMethod=LatestReleased&dDocName=073887, accessed 26 July 2018).
- Statistics Austria (2018c). Betreuungs- und Pflegedienste. Vienna: Statistik Austria. (http://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/soziales/sozialleistungen_auf_landesebene/betreuungs_und_pflegedienste/index.html, accessed 26 July 2018).
- Statistics Austria (2018d). Allgemeiner Einkommensbericht 2016. Unselbständig Erwerbstätige. Berufsgruppen. Bruttojahreseinkommen der unselbstständig Erwerbstätigen nach Berufsgruppen. Vienna: Statistik Austria. (https://www.statistik.at/web_de/statistiken/menschen_und_gesellschaft/soziales/personen-einkommen/allgemeiner-einkommensbericht/index.html, accessed 26 July 2018).
- Steiner G (2016). 60 Jahre ASVG. Soziale Sicherheit.I/2016:5–14.
- Stemar G (2015). Managed entry agreements für Arzneimittel – Auswirkungen auf und Möglichkeiten für den intramuralen Versorgungsbereich in Österreich. Masterarbeit. Vienna: Vienna University of Economics and Business.
- Suchtvorbeugung Österreichische ARGE (2017). Österreichische ARGE Suchtvorbeugung [website]. Linz: Österreichische ARGE Suchtvorbeugung. (<https://www.suchtvorbeugung.net/>, accessed 26 July 2018).
- SVÄG (2010). 2. Sozialversicherungs-Änderungsgesetz 2010.
- SVB (2016). Auswertung der von den diplomierten Gesundheits-/Krankenpflegepersonen durchgeführten Hausbesuche im Zeitraum von Jänner bis Dezember 2016: Pflegegeldbezieher, bei denen im Rahmen eines Hausbesuches die Voraussetzungen für die Gewährung einer Förderung zur 24-h-Betreuung gemäß § 21b Abs. 2 Ziffer 5 lit. b BPGG beurteilt wurden. In: Sozialversicherungsanstalt der Bauern ed. Kompetenzzentrum Qualitätssicherung in Der Häuslichen Pflege. Vienna: Bundesministerium für Arbeit, Soziales und Konsumentenschutz, Sozialversicherungsanstalt der Bauern.
- TQS, HVSVT (2016). Bevölkerungsbefragung 2016. Erhebung des Wissensstandes der Bevölkerung zu gesundheitspolitischen Themen mit besonderem Fokus auf die aktuelle Gesundheitsreform. Hauptverband der Österreichischen Sozialversicherungsträger Unter Mitarbeit der Gesundheit Österreich. Wien: Bundesministerium für Gesundheit.
- Transparency International (2018a). Gesundheitswesen. Berlin: Transparency International. (<https://www.ti-austria.at/?s=Gesundheit>, accessed 28 February 2018).
- Transparency International (2018b). Gesundheitswesen – Relevanz des Themenbereiches. Berlin: Transparency International. (<https://www.ti-austria.at/worum-es-geht/korruption-nach-themenbereichen/gesundheitswesen/>, accessed 26 July 2018).
- Trukeschitz B, Schneider U (2012). Long-term care financing in Austria. In: Costa-Font J, Courbage C eds. Financing long-term care in Europe. Institutions, markets and models. Basingstoke, UK: Palgrave Macmillan.
- Trukeschitz B, Schneider U, Mühlmann R, Ponocny I (2013). Informal eldercare and work-related strain. *J Gerontol: Series B*.68:257–267.
- UG (2002). Bundesgesetz über die Organisation der Universitäten und ihre Studien (Universitätsgesetz 2002 – UG).
- Umweltbundesamt (2016). Elfter Umweltkontrollbericht. Umweltsituation in Österreich. Bericht des Umweltministers an den Nationalrat. Vienna: Umweltbundesamt.
- Ungerson C (2004). Whose empowerment and independence? A cross-national perspective on “cash for care” schemes. *Ageing & Society*.24:189–212.

- University of Vienna (2012). PatientInnen- und Angehörigenorganisationen in Österreich (PAO). Vienna: University of Vienna. (<http://www.univie.ac.at/pao/>, accessed 22 December 2017).
- Unterthurner M (2007). Selbstbehalte im Österreichischen Gesundheitssystem. WISO.2:115–131.
- Vereinbarung gemäß Art. 15a B-VG Zielsteuerung-Gesundheit (2017). Vereinbarung gemäß Art. 15a B-VG Zielsteuerung-Gesundheit. BGBl. I Nr. 97/2017.
- Vereinbarungsumsetzungsgesetz (2017). Bundesgesetz, mit dem ein Bundesgesetz zur partnerschaftlichen Zielsteuerung-Gesundheit (Gesundheits-Zielsetzungsgesetz – G-ZG) erlassen wird.
- Vereinsgesetz (1867). Gesetz vom 15. November 1867 über das Vereinsrecht. RGBl. Nr. 134/1867.
- Vogler S, Zimmermann N (2016). Glossary of pharmaceutical terms. Vienna: WHO Collaborating Centre for Pharmaceutical Pricing and Reimbursement Policies.
- Vogler S, Morak S, Zimmermann N (2010). Pharma-Glossar. Vienna: Gesundheit Österreich GmbH/Österreichisches Bundesinstitut für Gesundheit.
- Vogler S, Schmickl B, Zimmermann N (2013). Short PPRI / PHIS Pharma Profile Austria 2013. Vienna: Gesundheit Österreich GmbH.
- Vogler S, Paris V, Ferrario A, Wirtz VJ, de Joncheere K, Schneider P et al. (2017). How can pricing and reimbursement policies improve affordable access to medicines? Lessons learned from European countries. *Appl Health Econ Health Pol.* 15:307–321.
- VVÖ (2013). Broschüre “Auf den Punkt gebracht” – Krankenversicherung. Vienna: Versicherungsverband Österreich. (<http://www.vvo.at/vvo/vvo.nsf/033bc38c04cb4a8bc12574dc005de1e4/efee6792de4f6fac1257d08002fc38d?OpenDocument>, accessed 26 July 2018).
- VVÖ (2017). Jahresbericht 2016. Vienna: Versicherungsverband Österreich.
- Waldner G (2001). Die Entwicklung der Honorare bei niedergelassenen Ärzten in Österreich, Deutschland und in den Niederlanden. Eine vergleichende Studie. Linz: Institut für Gesellschafts- und Sozialpolitik, Johannes Kepler Universität und Oberösterreichische Gebietskrankenkasse.
- Weiss S (2014). Komplementärmedizin in Österreich aus der rechtlichen Perspektive. Tagung “Wer heilt hat recht?”. 18 June 2014, Vienna.
- Weltkarte (2018). Landkarten von Österreich [website]. (<https://www.weltkarte.com/europa/oesterreich>, accessed 6 September 2018).
- WGKK (2017a). Wiener Gebietskrankenkasse [website]. Vienna: Wiener Gebietskrankenkasse. (<http://www.wgkk.at>, accessed 26 July 2018).
- WGKK (2017b). Teeth. Vienna: Viennese health insurance fund. Vienna: Wiener Gebietskrankenkasse. (<http://www.wgkk.at/portal27/wgkkportal/content?contentid=10007.755090&viewmode=content>, accessed 26 July 2018).
- WHO (2001). Legal status of traditional medicine and complementary/alternative medicine: a worldwide review. Geneva: World Health Organization.
- WHO (2013). Review of social determinants and the health divide in the WHO European Region: final report. Copenhagen: WHO Regional Office for Europe.
- WHO (2017a). Growing up unequal: gender and socioeconomic differences in young people’s health and well-being. Health Behaviour In School-Aged Children (HBSC) Study: International Report from the 2013/2014 Survey. Health Policy for Children and Adolescents, No. 7. Copenhagen: WHO Regional Office for Europe.
- WHO (2017b). Country profile Austria. WHO report on the global tobacco epidemic, 2017. Geneva: World Health Organization.
- WHO (2017c). European Health for All Database (HFA-DB) [offline database]. Copenhagen: WHO Regional Office for Europe. (<http://www.euro.who.int/en/data-and-evidence/databases/european-health-for-all-family-of-databases-hfa-db>, accessed 10 October 2017).
- WHO (2017d). Austria: The health system and policy monitor: regulation. Geneva: World Health Organization.

- Wilbacher I (2018). Soziale Unterschiede nach Krankenversicherungsträgern in Österreich. *Soziale Sicherheit*. 4:139–144.
- Winkelmann J, Hofmarcher MM, Kovacs E, Szocska G (2013). Cross-border dental care between Austria and Hungary. *Eurohealth*.4:26–28.
- Winkelmann J, Schmidt AE, Leichsenring K (2015). Regulating migrants as a low-cost solution for long-term care: the formalisation of a dual care labour market in Austria. In: Carbonnier C, Morel N eds. *Analysing the political economy of household services in Europe*. Basingstoke: Palgrave Macmillan.
- Winkler P, Griebler R, Haas S (2014). *Rahmen-Gesundheitsziele. Gesamtkonzept für ein begleitendes Monitoring*. Vienna: BMASGK.
- WKÖ (2018). *Personenberatung und Personenbetreuung: Branchendaten*. Vienna: Wirtschaftskammer Österreich. (http://wko.at/statistik/BranchenFV/B_127.pdf, accessed 26 July 2018).
- World Bank Group (2017). *World development indicators*. Washington: The World Bank Group. (<https://data.worldbank.org/products/wdi>, accessed 26 July 2018).
- Zahnärztegesetz (2005). *Bundesgesetz über die Ausübung des zahnärztlichen Berufs und des Dentistenberufs (Zahnärztegesetz – ZÄG)*. BGBl. I Nr. 126/2005. Last amendment: BGBl. I Nr. 8/2016.
- Zechmeister-Koss I (2012). *Gesundheitszustand von wohnungslosen Menschen und deren Zugang(sbarrieren) zum Gesundheitssystem*. Vienna: Ludwig Boltzmann Gesellschaft GmbH.
- Zechmeister-Koss I, Winkler R, Fritz C, Thun-Hohenstein L, Tuechler H (2016). Services use of children and adolescents before admission to psychiatric inpatient care. *J Ment Health Pol Econom*.19:103–113.
- Zimmermann N, Rainer L (2018). *Short PPRI Pharma Profile Austria 2017. Pharmaceutical Pricing and Reimbursement Information (PPRI)*. Vienna: Gesundheit Österreich GmbH.
- Zimmermann N, Vogler S (2012). *PPRI/PHIS Pharma Profile Austria*. Vienna: Gesundheit Österreich GmbH.
- ZS-G (2013). *Bundes-Zielsteuerungsvertrag Zielsteuerung-Gesundheit, abgeschlossen zwischen dem Bund, vertreten durch den Bundesminister für Gesundheit, dem Hauptverband der österreichischen Sozialversicherungsträger für die Träger der gesetzlichen Krankenversicherung, vertreten durch den Vorsitzenden des Vorstandes und die Vorsitzende der Trägerkonferenz, dem Land Burgenland, Land Kärnten, Land Niederösterreich, Land Oberösterreich, Land Salzburg, Land Steiermark, das Land Tirol, Land Vorarlberg, Land Wien, jeweils vertreten durch den Landeshauptmann*.
- ZS-G (2017). *Zielsteuerungsvertrag auf Bundesebene. Zielsteuerung-Gesundheit*. Vienna: Bund, vertreten durch Bundesministerium für Gesundheit und Frauen, Hauptverband der österreichischen Sozialversicherungsträger und Länder.
- Zsifkovits J, Rappold E, Schuchter P, Rottenhofer I (2013). *Pflegepersonalprognose Salzburg Gesundheitsbereich. Prognose des Pflegepersonalbedarfs in den Krankenanstalten des Bundeslandes Salzburg*. Vienna: Gesundheit Österreich Forschungs- und Planungs GmbH.

■ 9.2 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. This HiT has used a revised version of the template that is being piloted during 2016–2017 and will be available on the Observatory website once it has been finalized. The previous (2010) version of the 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 1 200 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.

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 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 OOP payments, VHI and how providers and health workers 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 IT 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 and dental care.
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 of systems for monitoring health system performance, the impact of the health system on population health, access to health services, financial protection, health system efficiency, health care quality and safety, and transparency and accountability.
8. **Conclusions:** identifies key findings, highlights the lessons learnt from health system changes; and summarizes remaining challenges and future prospects.
9. **Appendices:** includes references and useful websites.

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.
- 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.

■ 9.3 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.

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