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CLASSIFYING OECD
HEALTHCARE SYSTEMS:
A DEDUCTIVE APPROACH

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ABSTRACT

This paper is a first attempt to classify 30 OECD healthcare systems according to a typology developed by Rothgang et al. (2005) and elaborated by Wendt et al. (2009). The typology follows a deductive approach. It distinguishes three core dimensions of the healthcare system: regulation, financing, and service provision. Moreover, three types of actors are identified based on long-standing concepts in social research: the state, societal actors, and market participants. Uniform or ideal-type combinations unfold if all dimensions are dominated by the same actor, either belonging to the state, society, or the market. Further, we argue, there is a hierarchical relationship between the dimensions of the healthcare system, led by regulation, followed by financing, and last service provision, where the superior dimension restricts the nature of the subordinate dimensions. This hierarchy limits the number of theoretically plausible healthcare system types within the logic of the deductive typology. The classification of 30 countries according to their most recent institutional setting results in five healthcare system types: the National Health Service, the National Health Insurance, the Social Health Insurance, the Etatist Social Health Insurance, and the Private Health System. Of particular relevance are the National Health Insurance and the Etatist Social Health Insurance both of which include countries that have often provoked caveats when allocated to a specific family of healthcare systems. Moreover, Slovenia stands out as a special case. The findings are discussed with respect to alternative taxonomies, explanatory factors for the position of single countries and most likely trends.

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1. INTRODUCTION

In their 2009 paper on healthcare system types Wendt et al. criticize “the absence of a coherent taxonomy of healthcare system *types* that may serve as a first step in categorizing healthcare systems” (Wendt, Frisina und Rothgang 2009: 70). As a matter of fact, the healthcare literature offers a couple of classifications most of which are developed by the observation of existing OECD healthcare systems. Studies frequently refer to the National Health Service (NHS) system, the social health insurance (SHI) type or private health insurance (PHI) systems often reflecting case studies of England, Germany, and the US. Hence, there has been a lack of systematic deduction of healthcare system types leading to a more coherent and robust taxonomy. As a response to this shortcoming, Wendt et al. (2009) have elaborated a typology of healthcare systems developed by Rothgang et al. (2005). The typology distinguishes three dimensions which define the healthcare system: financing, service provision and regulation. It is argued that each dimension can be dominated by the state, societal, or private actors, technically yielding 27 distinct combinations. Uniform or ideal type combinations unfold if all dimensions are dominated by the same actor, either belonging to the state, society, or the market (Wendt, Frisina und Rothgang 2009: 71).

So far, this most recent typology (in the following labeled *RW-typology*) has been used as a background and comparative framework for extensive descriptions of the healthcare systems in England, Germany, the US (Cacace 2011; Rothgang et al. 2010), the Netherlands (Götze 2010), and Italy (Frisina Doetter und Götze 2011) as well as for quantitative clustering of healthcare systems based on access to care and health service provision (Wendt 2009). It has also guided the case selection and explanatory approaches to healthcare system change (Schmid et al. 2010; Schmid und Götze 2009). The basic idea of using healthcare system types as an explanation for developments in health policy is that each type tends to develop specific patterns of problems that will have to be addressed by politics (see also Moran 2000).

However, still lacking is a systematic application of the RW-typology for a larger sample of countries. Consequently, this paper¹ is a first attempt to put the empirical flesh on the bones of the 27-box matrix constructed by the taxonomy in order to provide a well documented and reproducible classification of healthcare systems. 30 OECD countries for which sufficient data are currently available will be classified according to their most recent institutional setting. Arguably, most health systems will be mixed types, but still incline either to the state,

1 Data collection has been conducted within the context of the research project “Decision-making processes and distributive effects” (<http://www.distributive-decisions.de/english/project>) founded by the Volkswagen Foundation and based at the University of Mainz. We would like to thank Dorothea Klinnert and Marco Brehme for their extensive case work, Barbara Ehgartner for her careful editing, and two anonymous reviewers for their helpful comments.

societal influence, or the market in some way, while some of the combinations will be more plausible than others. In a second step it is therefore necessary to identify clusters and to frame healthcare system types based on their specific combination of state, society and market, since only the *uniform* or *ideal types* are unambiguous classifications. However, before we come to this empirical exercise, we will have to exhibit the healthcare system typology in more detail and to set it in the context of other approaches to classify healthcare systems in the literature. Therefore, in the following section 2 we recapitulate the use of classifications. Section 3 deals with existing typologies of healthcare systems and describes the deductive concept of the RW-typology. Subsequently, section 4 addresses methodological concerns occurring in the classification process before we turn to the empirical core of the paper representing the classification of OECD healthcare systems (section 5). What follows in section 6 is the discussion of the resulting five healthcare system types and the special case of Slovenia. A conclusion in section 7 winds up the argument. The appendix gives a short description of the healthcare systems of all 30 countries under consideration and classifies them according to all our dimensions. Finally, the appendix briefly addresses those four countries belonging to the 34 OECD nations that have not been included in the classification due to missing data.

2. WHY CLASSIFY?

Classifications do have a long standing tradition in social science since processes of sorting, ordering, and comparing involved in classifying social, political, or economic entities are intrinsically scientific: “By making such classifications, generalizations regarding the members or properties of given categories are also made possible. In this way, we might think of classification as the foundation of all science” (Freeman und Frisina 2010: 164). Particularly, in comparative welfare state research an extensive literature on welfare regimes has developed. Arguably, the most influential typology has been Esping-Andersen’s (1990) classification of countries into a *social democratic*, a *conservative*, and a *liberal* type, thereby relating normative welfare state theories (Marxism, Conservatism, and Liberalism) to real-historical welfare states. Such well designed taxonomies, it is argued, are fundamental to sound comparative analyses (Wendt, Frisina und Rothgang 2009: 70). Thus, Esping-Andersen’s typology has triggered the re-examination of welfare states leading to new types such as the *Radical* or the *Latin Rudimentary* welfare state highlighting features of countries which do not fit neatly into the established categories (Castles und Mitchell 1993; Leibfried 1992). Even more important, the typology has evoked new theoretical perspectives, e.g. brought forth by the feminist critique pointing to the neglect of the gender dimension in social policy (Lewis 1992; Orloff 1993). Further, it has contributed to developing hypotheses about the effects of welfare states, e.g. in terms of political cleavages or labor market performance (Esping-Andersen 1996; Iversen und Wren 1998; Scharpf 2000). This brief example gives a first hint towards the utili-

ty of typologies. They provide a conceptual frame for description and a reference scheme for comparisons across nations. Furthermore, they may provoke new perspectives and theoretical approaches as well as to foster the development of hypotheses.

The generation of types can be inductive based on the main features of real cases, or rather be derived deductively from theoretical concepts. The inductive strategy depends strongly on the sampling of cases. It therefore bears the risks of designing too narrow classes which fail to involve all theoretically possible types and of reducing generalizability. Conversely, the deductive approach can be too abstract and lose the link to the critical features distinguishing real cases (Freeman und Frisina 2010: 165). Either way, classifications require the definition of criteria to distinguish cases. The development of these criteria and the following steps of arranging the cases will contribute to comprehend cases, their differences and similarities.

An established method to construct classes is Max Weber's method of ideal types. Ideal types are developed on the basis of real cases by revealing their typical features and arranging these and other more diffuse aspects into a unified analytical construct (Wendt, Frisina und Rothgang 2009: 70). The comparison between these ideal types and real-historical cases is a method to illustrate cases, the differences between them, and changes over time. *“As such, the ideal-typical method is a central starting point for the measurement of change”* (Wendt, Frisina und Rothgang 2009: 71). Referring to Hall's (1993) idea of different order changes, a shift from one ideal type to another, or a case changing classes may exemplify a major change compared to alternations within a certain configuration. Meanwhile, this will not exonerate the researcher from discussing the question at which point some case still corresponds with a certain type, when it will have to be classified as hybrid, or when it actually belongs to a different type. In these discussions ideal types generally represent *“cases deemed to best exemplify the characteristics or properties of a given class”* (Freeman und Frisina 2010: 165). Classifications often involve the peril of concept stretching and forcing diverse cases into the same class, in the end producing a meaningless typology. However, these disputes often foster further research: The development of typologies and the (ambivalent) classification of cases have acted as a catalyst for comparative research, as can be seen from the spread of welfare state literature related to Esping-Andersen's worlds of welfare (Arts und Gelissen 2002) and the effects of early health systems taxonomies (Burau und Blank 2006: 74). Besides provoking research questions related to classification, such as why some cases deviate from the ideal type, there is further use of classifications in guiding case selection. Thus, Wendt et al. state: *„The possibility in pinpointing those cases which are of greatest real world relevance can help guide the case selection of researchers that do not conduct large n studies”* (2009: 82). Therefore, comparative research methods employing a most similar/different systems approach can make use of classifications since the type controls for context variables. While divergent developments of cases belonging to the same type may cast doubt on the classification, this finding can also help to identify the variables which drive the divergence.

3. HEALTHCARE SYSTEMS CLASSIFICATION

This section deals with the classification of healthcare systems. Therefore, we start with an overview of already existing typologies and emphasize their advantages and drawbacks. Next, we turn toward the deductive model developed by Rothgang and Wendt. This so called RW-typology leads to 27 possible combinations. In a final step, we argue that only ten of these combinations seem to be plausible due to hierarchical interdependence of the three dimensions regulation, financing, and service provision. We also introduce distinct labels for these plausible healthcare system types derived from the deductive model.

3.1 Existing Typologies

While the logics of state-based systems, corporatism, and market-dominance reflected in welfare state typologies correspond to concepts in healthcare research, the criteria employed for these typologies are less suited to classify health systems since they tend to focus on monetary benefits rather than services (see Bambra 2005a; Bambra 2005b). Despite the absence of a coherent taxonomy of healthcare systems the RW-typology can build on various earlier approaches, sketched briefly below. Here, we mainly draw upon the history of healthcare system typologies identified by Wendt et al. (2009) and Freeman and Frisina (2010).

Field's (1973; 1980) early functional approach to healthcare types includes western and socialist countries. The main criteria are the extent of public control over healthcare resources (funding, personnel, knowledge, and legitimacy) versus professional autonomy leading to a *pluralistic* type characterized by heterogeneous resources and a high degree of professional autonomy, an *insurance* type mainly distinguished from the pluralistic type by third party financing, a *health service system* which combines public control over healthcare resources with professional autonomy and a *socialist* type with full control of the state over resources. Terris (1978) even aims at a global classification based on the nature of the economic system where pre-capitalist systems correspond to the *public assistance* type, capitalist systems match with the *insurance* type and socialist regimes develop healthcare systems of the *National Health Service* type. Differently, Frenk and Donabedian's (1987) approach aims to identify types of health systems coexisting in a given country. The overarching question is the extent of state control over healthcare programs. Here, the main criteria are the extent of state-based funding and the mode of eligibility for services (citizenship, contribution, or poverty).

The OECD-classification (OECD 1987) of wealthy western countries, which builds on similar criteria, arrives at three types that have been used regularly by healthcare researchers (Freeman und Frisina 2010). The extent of coverage and the mode of financing and delivery of healthcare distinguish the *National Health Service* from the *social insurance model*, and the *private insurance model*. The NHS model features universal coverage, funding from general taxes and public ownership of healthcare delivery. The social insurance model combines

universal coverage with funding coming mainly from contributions and public or private delivery. Finally, in the private insurance model coverage is only based on private insurance, which is also the major funding source. Delivery is characterized by private ownership.

A more recent typology by Lee et al. (2008) criticizes the ambiguous classification of South Korea and Taiwan into the established three OECD-categories. It is argued that these systems form an own category combining universal access to healthcare through a state administered social insurance scheme with private provision. The approach is illustrated with a four-box-matrix. The administration of funding can be concentrated in the hands of the state or dispersed into public or private insurance funds while the healthcare provision is either public or private. This yields the established categories – *NHS* type (single-payer, public provision), *social health insurance* type (multi-payer, public provision), *private health insurance* type (multi-payer, private provision) – plus a new *national health insurance* type (NHI) combining single-payer structures with private provision. However, the grid has to be specified by further criteria: “*First, what group of people does the national health care system aim to protect – all citizens, the specific insured, or the vulnerable? Second, which sector is the main provider in health care provision – is it public or private? Third, is state intervention in health care financing administration concentrated or dispersed?*” (Lee et al. 2008: 111). NHI are seen as different from NHS and insurance-based healthcare systems since they aim at universal coverage (such as the NHS but unlike insurance based schemes), which is reflected by direct state intervention into financing and the resulting single-payer system, and since they are based upon private healthcare providers (unlike the NHS and unlike SHI as claimed by Lee et al.). The typology arrives at ideal types based on different concepts of solidarity and strengths of state intervention. However, some caveats are in order, when it comes to classify real-historical cases. First of all, the approach neglects out-of-pocket spending which can take a large share in NHI systems and substantially thwarts the idea of single-payers, universal coverage and solidarity. Moreover, the public/private division of service delivery is merely implemented as the majority share of hospital beds owned by public or private providers. This fails to consider the public/private-mix in the outpatient and pharmaceutical sectors. As a result, the typology includes ambiguous classifications since countries such as the Netherlands and Japan are SHI with *private* provision dominance in the hospital sector. Considering the outpatient sector, the dominance of private healthcare provision in many SHI systems is clearly revealed (see the chapter by Schmid and Wendt in Rothgang et al. 2010).

Next to classifications mainly based upon qualitative assessments, recently, three papers have contributed to the healthcare regime literature, which support the identification of health system classes through cluster analysis. Joumard et al. (2010) focus on healthcare institutions in OECD countries, while Borisova (2011) seeks to group healthcare systems in post-soviet transition countries in order to estimate their effects on health outcomes, and Wendt (2009) emphasizes indices of service provision and access to healthcare.

Joumard et al. (2010) build on a survey of institutional characteristics of 29 OECD health systems by Paris et al. (2010). This analysis employs 20 institutional variables referring to the reliance on market mechanisms, coverage principles, and management approaches. The study arrives at six clusters. Germany, the Netherlands, Slovakia, and Switzerland form a cluster of countries using market mechanisms in service provision and free choice of insurer. A second cluster, formed by Australia, Belgium, Canada, and France, shares market mechanisms in provision with the first cluster, but uses “public” (in the sense of assigned) insurance for basic coverage. This cluster is further characterized by private insurance top-ups and some gatekeeping. Cluster three, including Austria, Czech Republic, Greece, Japan, Korea, and Luxembourg, again relies on market mechanisms in provision and assigned insurances, but little private insurance elements and no gatekeeping. Cluster four, composed of Iceland, Sweden, and Turkey, is characterized by public provision and insurance, but uses no gatekeeping and grants free choice of providers. Cluster five, including Denmark, Finland, Mexico, Portugal, and Spain, shares public provision and insurance with cluster four, but cluster five-countries take advantage of gatekeeping. Users have limited choice of providers and there are soft budget constraints. Finally, cluster six, comprising Hungary, Ireland, Italy, New Zealand, Norway, Poland, and the UK, features public provision and insurance, while using gatekeeping and strict budget constraints. There is ample choice of providers. Interestingly, the institutional features reveal little differences between NHS and SHI structures. The fact that countries with high shares of out-of-pocket spending (e.g. Greece, Korea, Turkey, and Mexico) form clusters with universal public schemes is bewildering. The results of this clustering process are hard to frame and the authors abstain from condensing the results to system types.

Borisova (2011) uses a similar approach based on 58 inductively selected variables referring to financing, organization, primary care, patient orientation, and professional influence. Her analysis gears towards transition countries and their development from soviet Semashko systems characterized as “*strictly planned, owned and budgeted by the state [...] with a tendency of over-staffing and over-bedding, and increasing under-financing*” (Borisova 2011: 336) to current health systems. Hence, she prefers a fine-grained classification in order to identify small reform shifts. While some Central and Eastern European (CEE) countries are categorized as a mild Semashko-variant, Croatia and Slovenia have included SHI elements prior to transition. The final observation period identifies seven types which to different extents include elements of the Semashko-model and the SHI-type. Thus, the reformed CEE hybrid model (e.g. Estonia, Poland or Slovenia) is characterized by universal coverage, financing through earmarked taxes, a purchaser-provider split, public hospitals, and private or mixed delivery in the outpatient sector. The Czech Republic and Slovakia build a liberalized CEE group which more closely resembles multiple-fund SHI systems of the Western world.

Furthermore, Wendt (2009) seeks to frame system types addressing service provision and access to care in EU countries. The variables include total healthcare expenditure per GDP,

the public share of healthcare financing, the share of out-of-pocket spending as percentage of total health spending, inpatient and outpatient care indices (Wendt und Kohl 2009), the main mode of entitlement, doctor remuneration, and an index of regulation of patient access (see Reibling und Wendt 2009). The EU sample reveals three clusters, while the Netherlands and Greece fail to cluster with any other European country. Austria, Belgium, France, Germany, and Luxembourg form a health service provision-oriented type which shares high levels of spending with a moderate fraction of out-of-pocket financing, high levels of outpatient care and free choice of provider. The second cluster represents a universal coverage, controlled access type. This cluster includes Denmark, UK, Sweden, and Ireland which show a medium level of spending, a moderate fraction of out-of-pocket financing, low outpatient care and limited access to doctors. Finally, the third cluster is framed as a low budget, restricted access type. Portugal, Spain, and Finland feature low levels of spending, high levels of out-of-pocket financing, limited access of patients to providers, and moderate outpatient provision.

The different approaches to classification share many concepts and highlight the main categories that have to be concerned when classifications are defined. The *delivery of services* and their *financing* are core dimensions looked at, particularly with respect to the extent to which the state intervenes in healthcare and with respect to the public/private-mix. Occasionally, these criteria are amended by questions of professional autonomy, eligibility, coverage or access, and the administration of financing. The latter all refer to aspects of *regulation*. This is why Rothgang et al. (2010; 2005) and Wendt et al. (2009) argue that next to financing and service provision, regulation will have to be considered as a dimension of the healthcare system in its own right and to be included systematically in healthcare system typologies.

Indeed, a series of detailed comparative case studies that are concerned with healthcare system types put the main actors of health systems as well as modes of governance in the center of their analyses. The studies point to similar concepts distinguishing three ideal forms of regulation corresponding to state-based actors, societal actors, and market participants. Hierarchy (Freeman 2000; Rico, Saltman und Boerma 2003; Tuohy 1999; 2003), state-led systems (Giaimo und Manow 1999) or command and control systems (Moran 1999) frame one class of coordination or governance. The second refers to networks (Freeman 2000; Rico, Saltman und Boerma 2003), collegiality (Tuohy 1999; 2003) or corporatism (Giaimo und Manow 1999; Moran 1999) as means of regulation through non-governmental actors. Finally, the market emerges as a typical mode of regulation in these studies. Consequently, again three types are identified highlighting the statist, corporatist, and private nature of healthcare.

3.2 The Rothgang-Wendt-Typology

Generally, the cited typologies rather start from an inductive approach, more or less closely related to a sample of real cases of healthcare systems. Often, features of the British, German, and US healthcare systems guide the taxonomies. New types such as the NHI or Moran's *insecure command and control state* emerge as countries fail to group with the developed categories. While the concentration on three ideal types contributes to the understanding of healthcare systems as it highlights deviations from the ideal concepts, such a classification seems inadequate to properly reflect real-historical cases (Bureau und Blank 2006).

Figure 1: Classification of healthcare systems

#	Healthcare system type	Regulation	Financing	Provision
1	<i>Ideal type: State Healthcare System</i>	State	State	State
2	State-based mixed-type	State	State	Societal
3	State-based mixed-type	State	State	Private
4	State-based mixed-type	State	Societal	State
5	State-based mixed-type	State	Private	State
6	State-based mixed-type	Societal	State	State
7	State-based mixed-type	Private	State	State
8	Societal-based mixed-type	State	Societal	Societal
9	Societal-based mixed-type	Societal	State	Societal
10	Societal-based mixed-type	Societal	Societal	State
11	<i>Ideal type: Societal Healthcare System</i>	Societal	Societal	Societal
12	Societal-based mixed-type	Societal	Societal	Private
13	Societal-based mixed-type	Societal	Private	Societal
14	Societal-based mixed-type	Private	Societal	Societal
15	Private-based mixed-type	State	Private	Private
16	Private-based mixed-type	Private	State	Private
17	Private-based mixed-type	Private	Private	State
18	Private-based mixed-type	Societal	Private	Private
19	Private-based mixed-type	Private	Societal	Private
20	Private-based mixed-type	Private	Private	Societal
21	<i>Ideal type: Private Healthcare System</i>	Private	Private	Private
22	Completely mixed-type	State	Private	Societal
23	Completely mixed-type	State	Societal	Private
24	Completely mixed-type	Private	State	Societal
25	Completely mixed-type	Private	Societal	State
26	Completely mixed-type	Societal	State	Private
27	Completely mixed-type	Societal	Private	State

Source: Adapted from Wendt, Frisina and Rothgang (2009: 82)

The typology by Rothgang and Wendt (RW-typology) shares many categories with the above mentioned typologies, but differs from these approaches since it attempts a *deductive* construction of healthcare system types allowing for a more precise tool to classify healthcare systems. Basically, as Wendt et al. (2009) state, healthcare systems are about the delivery of health services for which someone has to raise money. This establishes relationships between providers of services, the beneficiaries, and financing institutions which have to be regulated. Hence, the healthcare system is defined by three functional processes: service provision, financing, and regulation. Further they argue, societies can choose from a set of actors and coordination mechanisms reaching from hierarchical state intervention with a clear domination-subordination relationship over collective negotiations where societal actors enter into long-term agreements to dispersed exchange processes on markets (Rothgang et al. 2010: 14f.).

Not surprisingly, similar sets of actors and modes of regulation emerged from inductively generated taxonomies and echo the long-established trichotomy of state, society, and market in the social sciences. Now, if each of the three functional processes can be dominated by one form of actor/regulation, technically 27 distinct combinations are conceivable (see figure 1). Though some of these combinations are rather unlikely (shown in more detail in section 3.3) and the taxonomy remains based on qualitative judgment, the possible resulting types are more transparent and open to different outcomes than in many other qualitative classifications.

Figure 2: Objects of regulation

Relations between (potential) beneficiaries and financing agencies:

- (1) *Coverage*: the inclusion of (parts of) the population in public and/or private healthcare systems
- (2) *System of financing*: the financing of healthcare by public and/or private sources

Relations between financing agencies and service providers:

- (3) *Remuneration of service providers*: the specific system of provider compensation
- (4) *Access of (potential) providers to healthcare markets*: access to financing agencies

Relations between service providers and (potential) beneficiaries:

- (5) *Access of patients to service providers*: the specific delivery of care to patients
 - (6) *Benefit package*: the content and range of services offered to patients
-

Source: Adapted from Rothgang et al. (2010: 14)

The remainder of this section deals with a more detailed description of the allocation of actors/coordination processes to the three dimensions. The *regulation dimension* can be structured as the relation between financing agencies, providers, and (potential) beneficiaries (Rothgang et al. 2005). From this set of actors follow six objects of regulation: coverage, the system of financing, the remuneration of providers, the access of providers to markets, the access of patients to providers, and the benefit package (see figure 2). The pertinent question for classifying the regulation dimension then arises as “*who is in charge of regulating and*

controlling these relationships” (Wendt, Frisina und Rothgang 2009: 81)? Drawing upon the above concepts, the state may be in charge through hierarchical means, societal actors may seek control through collective bargains, or market mechanisms may be at work. Assigning these ideal concepts of state, society, and the market by careful qualitative judgment to the objects of regulation is the basis for classifying the *regulation* of healthcare systems.

Besides regulation, the classification of healthcare systems requires classifying the financing *dimension*. Here, general and earmarked taxes reflect state financing. The main characteristics of taxes include that they do not directly constitute entitlements for healthcare services. On the other side of the spectrum contributions to private insurance and out-of-pocket payments occur in the private sector. Regularly, private spending is related to the individual health risk. While there is a redistributive element in private insurance, namely the ex-post redistribution from the healthy to the sick, premiums generally seek to rate the individual risk. Social insurance contributions reflect the societal element. Financing is organized parafiscally, in funds autonomous from the state. Social insurance contributions constitute entitlements to healthcare services. Generally, they are separated from the individual health risk and rather related to income thus incorporating some elements of ex-ante redistribution.

Finally, the *service provision dimension* needs to be classified. While most classifications only report the public/private mix, the trichotomous concept is preferable since private non-profit providers, reflecting a societal element, are neither similar to for-profit market actors nor part of the state administration. The role of public, societal, and private providers can be measured using a trichotomous service provision index (Rothgang et al. 2010: 137). The first step to construct this index is to allocate weights to the main healthcare sectors: inpatient care, outpatient and dental care as well as pharmaceuticals. Then the public/private-mix within these sectors is measured. With respect to inpatient care, the share of hospital beds in public, private non-profit, and private for-profit ownership serves as an indicator. In the outpatient, dental, and pharmaceutical sectors the employment status of doctors and pharmacists proxy state, societal, and private actors. Public employment represents state actors, while non-profit institutions and their employees stand for the societal realm. Self-employed professionals or those employed in for-profit enterprises are considered as private actors. The sector weights and the information on the status of hospitals and healthcare professionals are then used to qualify the service provision dimension. The construction of the service provision index exemplifies our general approach to estimate the role of different providers. For several countries, this kind of detailed, comparative data is not available. In this case qualitative assessments based on country descriptions – however, within the logic of the provision index – will have to be made (for details see following section 4 on methods).

3.3 Classification Tree

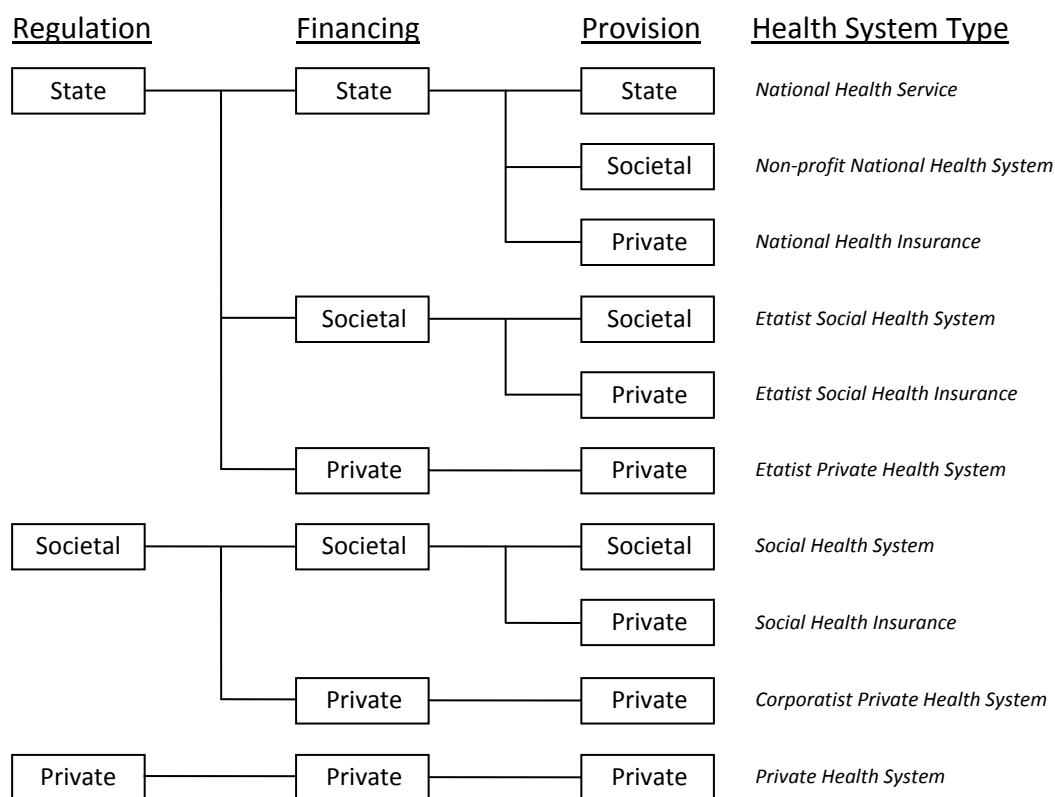
The deductive model for healthcare system types leads to 27 possible combinations, but some appear inherently dysfunctional. For example, a model that combines public provision of services with private financing seems implausible. The reason for public provision of health services is to guarantee equal access which conflicts with predominant private financing. Although Wendt et al. (2009: 82) already indicate that some combinations are more likely than others, they offer no rule how to exclude unlikely types. Therefore, we add the theoretical argument of hierarchical interdependence to the original RW-typology.

We argue that regulation, financing, and service provision are not entirely independent from each other, but follow a clear order. Regulation leads this order because it determines the conditions of the other dimensions. It is followed by the financing dimension, which dominates service provision as the one who pays has generally a say about who provides. Service provision stands at the bottom of the hierarchy because it has no influence on the other dimensions. Moreover, we expect that the degree of collectivization (state, society, and private) of superior dimensions limits plausible characteristics of subordinate ones as the latter can only undercut or equal the former's degree of collectivization. For instance, state regulation is a necessary prerequisite for tax funding which is again a necessary precondition for public service provision.

In order to substantiate our assumption of a hierarchical interdependence, we conjecture a trade-off between a public interest in healthcare and the economic norm of capitalist societies. The latter suggests that the exchange of commodities is by default performed on markets. Hence, democratically elected governments have to justify any kind of state intervention by reference to either market failure or distributive goals. As health services are commonly acknowledged vulnerable to market failures (Arrow 1963) and a prototype of a merit good (Musgrave 1959: 6-16), state involvement can be justified by the public interest to guarantee effective, affordable, and accessible healthcare for the entire population (see Barr 1993; Culyer 1989). Though, the extent of state involvement is variable. The highest potential for goal-attaining with the lowest visible 'disturbance' of the economical context is achieved if state involvement is limited to the sphere of regulation. Thus, state authorities or societal actors can directly control the safety and effectiveness of care. Moreover, regulatory measures might even improve affordability and access to healthcare. However, in order to guarantee affordable health services especially for high-risk groups and the poor, public financing is indispensable. Hence, the state can either finance healthcare out of its own revenues, or grant societal actors privileges to raise funds for this purpose. This already reflects a higher (visible) degree of state intervention into economy as public sources subsidize market prices of providers or patients and therefore distort demand. Nonetheless, even public funding might still not solve drawbacks with regard to universal access to services based on need. In this

case, the state can use the strongest interference in economic activities by providing services on its own. Alternatively, the state can limit access to the healthcare market to non-profit providers. This solution is less intensive than state provision but still signifies a heavy market intervention. Hence, the burden to legitimize public involvement, against the norm of free entrepreneurship and the interests of rent-seeking private actors, increases at every stage of this process. During welfare state expansion regulation will be the first, financing the second, and service provision the last area of public involvement into healthcare. *Vice versa* is the vulnerability for privatization during periods of retrenchment.

Figure 3: Plausible healthcare system types



By applying this assumption of hierarchical interdependence on the 27-box matrix, the number of plausible healthcare system types shrinks to ten (see figure 3). If the organization of the healthcare system is under direct state control, six plausible combinations of regulation, financing, and provision arise. Firstly, we get the *National Health Service* known from the UK or Scandinavian countries with a dominant role of the state in all three dimensions. The second combination leads to a type we label as *Non-profit National Health System* as the state regulates and finances the healthcare system but the provision of services relies on independent non-profit providers. Whereas in the third combination – the *National Health Insurance* – contracted for-profit providers perform services. The fourth plausible combination reflects an *Etatist Social Health System* where the state holds the regulatory power but grants privileges

for financing and provision of health services to societal actors (e.g. sickness funds with own health facilities). We get the fifth type when service provision is in the hand of for-profit providers. This so called *Etatist Social Health Insurance System* is also the sole plausible ‘completely mixed-type’ (see figure 1). Finally, the sixth combination depicts an *Etatist Private System* where funding and provision is left to market actors but their interactions are heavily regulated by the state.

Next, we turn to three plausible combinations in the case of governance under control of societal actors. The first one reflects an ideal-typical *Social Health System* where non-profit actors dominate all dimensions. Secondly, we identify the *Social Health Insurance System* of several Bismarckian welfare states. Societal actors regulate the core features of the healthcare systems financed by social security contributions but most service providers perform for-profit. The third combination represents a *Corporatist Private Health System* dominated by private insurers and for-profit providers but with comprehensive collective contracts between umbrella associations of both sides. Several managed care arrangements hint in this direction.

Finally, we take a look at the coordination of the healthcare system by private market actors. In this case of voluntary contracting, there is only one plausible combination labeled *Private Health System*: financing must rely either on private insurance or out-of-pocket payments and healthcare services are likely to be performed by for-profit providers. Hence, the sole plausible combination is also the ideal-typical one.

While this deductive reduction from 27 to ten plausible healthcare system types highlights the theoretical relationship between healthcare dimensions, it also faces some drawbacks. Firstly, we oversimplify the state as monolithic collective actor and do not consider differences between the federal, regional, and local level. For instance, a municipality might have various reasons for owning a public hospital such as employment or prestige which are not related to health policy goals. Secondly, the neglected combinations may be implausible but not completely impossible. As changes in healthcare regulation, financing, and service provision are often incremental and the dimensions are nominally scaled, inherently ‘dysfunctional’ combinations may occur during transformation processes. Thirdly, the population of a country might be covered through several separated sub-schemes (e.g. Germany or the United States). In this case, even consistent types for each sub-system may lead to an implausible aggregate (Simpson’s paradoxon, see Simpson 1951).

4. METHODS

In order to be filled with empirical data, the above developed theoretical framework of healthcare system had to be further specified. In the following we will describe how the framework has been operationalized and which data has been used for each dimension. Prior to this, some notes about the complexity of this task are in order. Healthcare systems of the industrialized countries are highly complex institutional constructs that differ widely between countries. For classification it is thus inevitable to reduce intricacy by focusing on certain aspects of reality and to neglect others. We have tried to base our choices on clear and transparent rules which are explained for each dimension below. We started with the aim to categorize all OECD countries but had to forgo Chile, Greece, Mexico, and Turkey due to missing data. For those countries, a summary description can be found at the end of the appendix.

4.1 Regulation

While the financing as well as the service dimension have been classified employing mainly quantitative data and clear thresholds, the categorization of healthcare regulation can only be based on qualitative decisions. To provide for consistency, we have developed strict decision-criteria for each object of regulation (see section 3.2) discussed below. Furthermore, we have tried to reduce complexity by focusing on the “core” part(s) of each healthcare system. Many healthcare systems do not consist of a unitary system but of several segregated parts. With regard to vertically segregated healthcare systems – that means, two or more systems that cover different parts of the population exist in parallel – we have focused on the system(s) with the greatest population coverage. We neglected systems that cover less than ten percent of the population because, empirically, subsystems below this threshold are unlikely to unfold enough impact on the overall health system to cause reclassification. With this filter, only the subsystems of Germany and the US remained for consideration (see appendix). Where a healthcare system shows horizontal segregation – a basic system for all and additional systems for certain population groups or additional private systems – we have concentrated on the general system and have neglected the additional ones for categorization.

Relations between beneficiaries and financing agencies

(1) Coverage:

This category describes who decides which groups will be covered by the public healthcare system. In every country we have examined, the state is responsible for decisions on population coverage. Thus, this seems to be a meta-category of regulation, which is why we have decided to not include it into our classification framework.

(2) *System of financing:*

In this category, classification is based on the actor who is in charge of determining the conditions of financing:

- All tax-financed healthcare systems are categorized as ‚state‘, because state actors define the extent and embodiment of tax-schemes.
- Where healthcare is mainly financed through contributions, the classification depends on the actor responsible for determining the contribution rate. If sickness funds set the rate at least partly, regulation is classified as ‚societal‘. Where executive or legislative bodies fix the contribution rate entirely, it is classified as ‚state‘.
- Where private health insurances decide upon premiums or where out-of-pocket payments dominate financing is the category ‚private‘.

Relations between financing agencies and service providers

(3) *Remuneration of service providers*

This category looks at the regulation of provider remuneration. In most countries, the remuneration systems for the inpatient and the outpatient sectors differ widely, which is why we have classified them separately. Hence, this category can take two concurrent values.

- If the remuneration rate and/or the allocation of funds (e.g. DRGs or global budgets) is determined by state actors, the remuneration of providers is defined as ‚state‘. This is also the case if service providers and the state bargain remuneration.
- If the conditions of remuneration are negotiated between social health insurance and service providers; or if remuneration is determined unilaterally by the social health insurance, this category is classified as ‚societal‘.
- If remuneration is set independently by private providers or in the case of negotiations between private insurers and providers, this category takes the value ‚private‘.

(4) *Access of (potential) providers to healthcare markets*

The classification of this category is based on the regulation of access to the public system. In many countries the regulation of market access varies extensively between the inpatient and outpatient sector, why we have again classified both sectors separately. Hence, this category can take two different values.

- If there exists a public hospital planning system which regulates market-entry, the inpatient sector is categorized as ‚state‘. The same is valid for both sectors if access of providers is restricted by law or by state actors.
- If societal actors (e.g. provider associations, social insurances) decide upon provider access, the category is classified as ‚societal‘.
- If access for providers is not restricted at all, this category is classified as ‚private‘.

Relations between service providers and (potential) beneficiaries:

(5) Access of patients to service providers

This category asks who is in charge of regulating access to service providers. Yet again, we have considered inpatient and outpatient care individually.

- If there is no free choice of doctor or hospital at all, this category takes the value ‚state‘. This also applies if state actors set strong incentives to forgo free choice (e.g. through reduced co-payments).
- In the case of gatekeeping by public service providers (e.g. general practitioners) but free choice of those providers, the regulation of access is defined as ‚state/private‘.
- If freedom of provider choice is restricted by SHI, or SHI provides strong incentives to forgo choice, we classify this category as ‚societal‘.
- The regulation of access is defined as ‚private‘ if patients can choose freely among providers, *and also* if individual private health insurances restrict access as long as patients have the opportunity to gain freedom of choice by changing health insurance.

(6) Benefit package:

This category is concerned with the regulation of the health benefit package and classification is based on the actor who is in charge of defining the content of the benefit package:

- If the content of the public benefit basket is defined by state actors or if there is not a clearly defined basket and, at the same time, service provision is mainly public, this category is defined as ‚state‘.
- This category takes the value ‚societal‘, if the content of the health benefit basket is negotiated between social health insurances and providers and also when state and societal actors together define the content of the health benefit package.
- If there does not exist a uniform and mandatory health benefit package and patients buy health services on the health market or if private health insurances are able to determine the scope of benefits individually, the value assigned is ‚private‘.

After having classified each of the five categories, we have summarized all of them, thereby giving one point if the whole category was defined as either state, societal, or private, half a point if two different actors have been relevant in one category and one third of a point if all three actors were involved in regulation. In the end, the actor dominating the most categories determined classification. In most cases, the classification of the regulation dimension has been based on the newest available WHO Health Care System profiles (HiT-reports) of the respective countries. Only where HiT-reports have not been available or outdated, or where necessary information had not been given by the report, we have used other information sources.

4.2 Financing

Concerning the financing dimension, countries have been classified using the health financing data from OECD Health Data for the year 2008. This data set provides health expenditure by financing agents and differentiates between government (*state*), social security funds (*societal*), private insurances, and out-of-pocket expenditure (both *private*).² The highest share then determines in which group the respective country is classified. As relative majorities might occur with three financing sources, we signal predominance below the 50-percent level in the result section.

4.3 Service Provision

The classification of health service provision is based on the service provision index developed by Rothgang et al. (2010). Like the index, we have focused on the three main items of expenditure within the healthcare systems of developed countries: inpatient care, outpatient care, and pharmaceuticals. First, we weighted these three sectors according to their relative share of health expenditure, again using OECD Health Data 2010 for the year 2008.³ In a second step, we took a closer look into each of these sectors and identified the shares of the dominant providers within each sector. For inpatient care we employed the number of hospital beds in private, societal, and state ownership from OECD Health Data or alternative sources. Service provision in the outpatient sector is more diversified, which is why we had to split up this sector further into its constituents (basic medical services, specialized services, and dental services), as provided by the OECD Health Data. For each of these three subsectors, information about the employment status of doctors (primary care doctors, outpatient specialists, dentists) has been gathered and classified: where physicians are publicly employed, service provision is public; where they work for non-profit organizations, it is societal; and where they are self-employed professionals or working in for-profit enterprises, provision is private. With respect to the pharmaceutical sector, our classification is based on the employment status of pharmacists, too. Where data on the employment status of pharmacists were not available, we used data on the ownership of pharmacies.⁴ In a third step, we multiplied the share of total health spending (expenditure by provider as percentage of total current expenditure) for each sector with the relative shares of private, societal, and state actors in each sector and then

2 The dataset also entails private expenditure of non-profit institutions, serving households and corporations (other than health insurance). Those have been neglected due to their minor share.

3 Where available, we have used health expenditure by provider data for the year 2008, except for Israel (newest data from 2007). For Ireland, Italy, and the UK we had to use alternative data, which is specified in the country chapter.

4 If we have not had exact quantitative information about the outpatient or pharmaceutical sector, we classified the whole sector according to information about the (in most cases vast) majority.

summed up the received shares of private, societal, and public provision. Finally, the actor with the relative highest share of provision was decisive for classification. With the exemption of two cases, which are marked in the result section, all countries show absolute majority of one provider in the three analyzed sectors. In the cases of Ireland, Italy and the UK, however, we had to follow a more heuristic approach because we had no exact data about the distribution of healthcare providers but rather crude information. For those cases we merely received approximate shares to base on our categorization.

5. RESULTS

The classification of 30 OECD health systems along the three dimensions regulation, financing, and service provision (see case descriptions in appendix) leads to six country clusters. Five of these clusters represent healthcare system types which we characterized as plausible ones (see figure 4). Only the Slovenian healthcare system currently resembles a combination (#10) which we deductively described as implausible as the state still provides most of the healthcare services with own facilities while funding is delegated to a social health insurance scheme. It is worth mentioning that the other 16 implausible types do not exist within the OECD. As five countries are classified only with a relative majority in at least one dimension, less substantial changes may result in reclassifications (see figure 4). Even then, Japan, Korea, and Switzerland would tend to plausible combinations. The evolution of implausible combinations would require rather strong shifts, such as a strengthening of private funds *and* a simultaneous stark increase of societal providers in Israel leading to mixed type #22. Similarly, a strong increase in state financing could turn Austria into mixed type #26.

Next, we focus on the five plausible healthcare system types with at least one currently existing case in the OECD world depicted with bold and black characters in figure 4. The first group represents the National Health Service (#1) including Nordic countries (Denmark, Finland, Iceland, Norway, and Sweden), two Iberian ones (Portugal and Spain), and the United Kingdom. Altogether these eight cases form the second biggest cluster in the OECD world. The second group shares the features of a National Health Insurance System (#3) and therefore relies on for-profit provision. Four Anglo-Saxon countries (Australia, Canada, Ireland, and New Zealand) plus Italy belong to this healthcare system type. Thirdly, we turn to the Social Health Insurance Systems (#12) including four German-speaking countries (Austria, Germany, Luxembourg, and Switzerland). The fourth plausible and existent healthcare system type – the Private Health System (#21) – only comprises the United States. Fifth and finally, the Etatist Social Health Insurance system with eleven cases represents the biggest cluster of countries in the OECD world. It mainly consists of Central and Eastern European countries such as Estonia, Czech Republic, Hungary, Poland, and Slovakia but is also found in two East

Asian OECD members (Japan and Korea), three Western European countries (Belgium, France, and the Netherlands), and Israel.

Figure 4: Dispersion of OECD healthcare system

#	Healthcare system type	R	F	P	Cases
1	National Health Service	St	St	St	Denmark, Finland, Iceland, Norway, Sweden, Portugal, Spain, UK
2	Non-profit National Health System	St	St	So	
3	National Health Insurance	St	St	Pr	Australia, Canada, Ireland, New Zealand, Italy
4	State-based mixed-type	St	So	St	
5	State-based mixed-type	St	Pr	St	
6	State-based mixed-type	So	St	St	
7	State-based mixed-type	Pr	St	St	
8	Etatist Social Health System	St	So	So	
9	Social-based mixed-type	So	St	So	
10	Social-based mixed-type	So	So	St	Slovenia
11	Social Health System	So	So	So	
12	Social Health Insurance	So	So	Pr	Austria*, Germany, Luxembourg, Switzerland*
13	Social-based mixed-type	So	Pr	So	
14	Social-based mixed-type	Pr	So	So	
15	Etatist Private Health System	St	Pr	Pr	
16	Private-based mixed-type	Pr	St	Pr	
17	Private-based mixed-type	Pr	Pr	St	
18	Corporatist Private Health System	So	Pr	Pr	
19	Private-based mixed-type	Pr	So	Pr	
20	Private-based mixed-type	Pr	Pr	So	
21	Private Health System	Pr	Pr	Pr	USA
22	Completely mixed-type	St	Pr	So	
23	Etatist Social Health Insurance	St	So	Pr	Belgium, Estonia, France, Czech Republic, Hungary, Netherlands, Poland, Slovakia, Israel*†, Japan†, Korea*
24	Completely mixed-type	Pr	St	So	
25	Completely mixed-type	Pr	So	St	
26	Completely mixed-type	So	St	Pr	
27	Completely mixed-type	So	Pr	St	

Bold/fine indicates **plausible**/implausible types. Black/grey indicates empirically existent/missing types.

Abbreviations: (R)egulation, (F)inancing, (S)ervice provision, (St)ate, (So)cietal actors, (Pr)ivate actors * Only relative majority in financing; † Only relative majority in service provision

Finally, the plausible healthcare system types without a current empirical example are depicted with bold grey characters in figure 4. We neither find a case for the Non-profit National Health System (#2), the Etatist Social Health System (#8), the Social Health System (#11), the Etatist Private Health System (#15), nor the Corporatist Private Health System (#18). This

is firstly related to the fact that non-profit actors do not dominate the service provision in any OECD country which is a necessary prerequisite for types #2, #8, and #11. Provision is either mainly public or private for-profit. Only Israel and Japan offer a real chance that the relative majority might swing toward non-profit provision leading to type #8. Secondly, predominant private funding, which is essential for the types #15, and #18, is also a rare feature. Within our country sample only the US are financing the main part of their health expenditure with private sources. As mentioned above three countries would fall in either one of these two categories if private funding surpasses the threshold to a relative majority. In addition, three of four missing cases are mostly privately financed but due to incomplete data for the other dimension a proper classification is not feasible (see appendix).

6. DISCUSSION

Our classification of healthcare systems has revealed six different types of healthcare systems in the OECD-world. We have found four healthcare families and two singular cases. Eight European countries form the NHS-family. The National Health Insurance family contains four English-speaking countries and Italy. Only four countries adhere to the Social Health Insurance model, while eleven countries belong to the large family of Etatist Social Health Insurance. The private healthcare system is only found in the US. Moreover, Slovenia challenges our theoretical assumptions about the specifications of dimensions in healthcare through the combination of state-led provision with societal financing and regulation.

In the following, we discuss each of the empirically verified healthcare system types. The discussion highlights the main characteristics and common specifications of each type. Since countries are classified according to a dominant modality, we examine how close the countries really match the particular healthcare system type. Is there variance within families of healthcare systems or do they form by and large homogeneous clusters? Further analyses compare our categories with earlier findings on healthcare typologies and give tentative explanations for the observed characteristics.

6.1 National Health Service

The National Health Service represents the ideal type state healthcare system where regulation, financing and provision are ruled by the state. The NHS type includes the Nordic countries (Denmark, Finland, Iceland, Norway, and Sweden), the UK, and two southern European countries, namely Portugal and Spain. State dominance in the Nordic healthcare systems and the UK is no surprise. The healthcare literature consistently highlights the strong role of the state in these countries, though labels vary from NHS-type (OECD 1987), ‘state-led’ (Giaino und Manow 1999) to ‘command and control’ healthcare states (Moran 2000). State domi-

nance in Portugal and Spain challenges earlier findings in the healthcare literature. It has been argued that southern European countries, including Italy, Spain, Portugal, and Greece, represent an own family of nations. Moran (2000) highlights the differences between southern ‘insecure command and control’ and northern ‘(entrenched) command and control’ states. While the Mediterranean states have developed NHS features, he maintains, private insurance and out-of-pocket spending as well as private provision have been much more pronounced the southern family. According to Moran, late implementation of NHS structures at times of fiscal austerity and a lack of administrative rationality have contributed to incomplete transformation. Similarly, Toth (2010) scrutinizes the Southern European Healthcare Model. As common characteristics, distinguishing it from Northern European NHS, he identifies the more recent creation around 1980, the legacy of social insurance structures (in Spain, Portugal, and Greece), a higher share of private provision and low satisfaction with the healthcare system. Social insurance and particularly private insurance elements as well as a higher share of private spending contribute to disparities in treatment.

Since we classify the healthcare systems according to the dominant modality in each dimension there might be some variance within a certain type if some systems are well over and others are closer to the chosen thresholds. Considering regulation, in all countries classified as NHS the state has the responsibility to govern the relation between the main actors in healthcare. Private actor decisions only play a role with respect to access of patients to services since in most systems there is some leeway for choice of providers. In Denmark and Iceland societal actors, namely physician associations have some regulatory power in determining access of providers to markets and negotiating remuneration. The formal regulatory structures considered here confirm the strong role of the state in the NHS family.

A closer look at financing reveals elements of SHI in Iceland, Finland, Norway, Spain, and Portugal. According to OECD data, the financing share of contributions is between 1.2% (Portugal) and 28.3% (Iceland). However, in Scandinavian countries contributions rather represent earmarked taxes. They accrue to more or less autonomous funds but do not establish any entitlements (Halldorsson 2003; Johnsen 2006; Vuorenkoski 2008). In Spain and Portugal SHI schemes for some groups of the population have survived. However, health expenditure through social insurance funds as measured by the OECD remains low with 1.2% in Portugal and 4.8% in Spain. It is also true that premiums play some role in Portugal (4.9%) and Spain (5.8%), while their spending share is marginal in the Scandinavian countries and the UK. In Northern NHS countries private spending remains below 20% of total spending. Out-of-pocket payments amount to 27.2% in Portugal and 21.5% in Spain, which means that the private spending shares (including private insurance) surmount the shares observed in the northern countries. Also if we consider that private spending is somewhat underestimated in southern countries (OECD 2011, Sources and Methods), tax spending still represents the dominant mode of funding with well over half of total expenditures.

The NHS family shows also some variance with respect to public provision. Hospital beds in public ownership only add up to 66-75% of all beds in Spain and Portugal while their share exceeds 90% in Scandinavia and the UK. All NHS countries give some leeway for private provision in outpatient sector, for specialist care, dental services, and pharmaceuticals. This said, public provision through state-owned hospitals and salaried physicians in public facilities is the prevailing modality. This feature distinguishes NHS countries from other health systems. The pivotal questions are therefore: How did governments get hold of providers? And, what are the common factors that explain the curtailment of provider autonomy?

The implementation of Scandinavian NHS can be interpreted as part of the general welfare state expansion and transformation into a social democratic welfare regime in the postwar economic boom. The NHS reflects social democratic values of universal coverage, equal access to services and beliefs in the efficiency of public services. Also the UK, Spain, and Portugal share social democratic governments at the time of NHS implementation. While the British NHS was introduced shortly after the end of World War II in a period of strong values of national solidarity (Baggott 2004), healthcare system reforms in Portugal (1979) and Spain (1986) followed the end of dictatorships in times of powerful social movements (Toth 2010).

A further characteristic that can be found in all countries is the low number of veto points in the political institutional system (Armingeon et al. 2009). Following Immergut's (1992) analysis of healthcare system evolution, the power of medical professions is dependent upon veto points in the political system they can use to turn down decisions that impair their professional autonomy and profit interests. Hence, social democratic governments and low veto potential of providers seem to be necessary requirements for the establishment of a NHS and state dominance in all dimensions of the healthcare system, respectively.

6.2 National Health Insurance

National Health Insurance (NHI) systems combine NHS regulation structures and tax financing with the dominance of private actors in the service provision dimension. NHI systems include Australia, Canada, Ireland, Italy, and New Zealand. In the healthcare literature, these countries have been grouped with NHS systems, but some also referred to other categories such as Social Insurance or public-contract in the case of Canada (Docteur und Oxley 2003; Tuohy 1999) or a Southern European Model (Italy) (Moran 2000; Toth 2010). Hence, there has been some vagueness with the classification of these countries.

While the state takes responsibility to regulate the relation between providers, payers, and patients, similarly to the NHS countries there is some leeway for patients to choose GPs or hospitals. In Canada the benefit package is negotiated between the provinces/states and the Medical Association representing a societal modality. In New Zealand, non-governmental

organizations are involved in determining the pharmaceutical benefit package. By and large, the regulatory patterns therefore do not differ from the NHS type.

The private financing share reaches from 18.7% in New Zealand to nearly one third in Australia and Canada. Except for New Zealand the private spending share in NHI systems exceeds private spending found in the northern NHS. In the English-speaking NHI also private insurance plays a larger role than in NHS countries. Thus, despite the fact that tax spending dominates in NHI, the larger share of private spending and the more important role of private insurance points to differences from NHS countries.

The decisive difference is to be found in service provision, which remains for the most part in private hands. First of all, compared to NHS countries, in NHI private or societal hospitals add up to a larger share as measured by the number of hospital beds. This said, public hospital beds still outnumber beds in private and societal ownership (with about 60-80% of total), except for Canada where nearly all hospitals are owned by non-profit organizations. However, service provision in the outpatient, dental, and pharmaceutical sectors is predominantly in private hands.

How can we explain the pattern of private delivery in state-regulated and tax-financed systems? Considering the main goals of public healthcare systems – universal coverage and equal access to services – public delivery may not be the top priority. If public agencies contract private providers universal, free care can be guaranteed without forcing doctors into public service (Rothgang et al. 2010: Chapter 4). The NHI countries also differ from the NHS family with respect to the political institutional context. Thus, the basic health reforms were implemented by centrist or conservative parties in Canada, Italy, and Ireland which do not adhere to the idea of efficient public services. The political systems of Australia, Canada, and Italy also provide more veto points to influence legislation either through federal structures or instable governments. In Australia, for example, the introduction of the public scheme had to face fierce opposition by the medical profession and the liberal party: The latter gained power soon after the implementation of the public scheme and strengthened private healthcare again. It took another change in government to consolidate Medicare (Healy, Sharman und Lokuge 2006). By and large, it may be argued that the exceptional conditions required to implement and to sustain an ideal state healthcare system have not been present in NHI countries.

6.3 Social Health Insurance

The Social Health Insurance type represents a dominating role of societal actors in healthcare regulation and financing but services are mainly delivered by private for-profit providers. The regulatory core of this healthcare system type is the corporatist self-administration based on collective agreements between umbrella associations of sickness funds and service providers.

Within the OECD context, four German-speaking countries belong to this system type: Austria, Germany, Luxembourg, and Switzerland.

At the first glance this cluster reassembles the Bismarckian welfare states but there are notable exceptions (Hassenteufel und Palier 2007). Firstly, France and Belgium are not part of this group as the state has a strong role in healthcare regulation. Secondly, Switzerland is not commonly considered as typical example of a Bismarckian system due to its liberal tradition (Esping-Andersen 1990). The latter can be explained by the fact that Switzerland joined the SHI-type relatively late. In 1996, the government introduced a compulsory health insurance for the entire population (Gerlinger 2009). Hence, Switzerland switched over to a SHI with a lot of reminiscences to its former private system (e.g. voluntary deductibles accounting to an out-of-pocket financing share of 30%). Against the background of an extremely veto-ridden political system (Immergut 1992), this is already a far-reaching reform which limited further direct state involvement. In contrast to this, the French-speaking countries had the state capacity to claim core regulatory features back from corporatist actors. Hence, the continuity of the corporatist SHI as well as the private status of physicians might be interlinked with their fragmented political systems which allow greater influence by interest groups.

Despite their geographical, cultural, and lingual similarities, the four cases reflect different varieties of their common healthcare system type. Altogether, Germany fulfils its role as prototype of a corporatist healthcare system (Giaino und Manow 1999; Moran 2000). Social security contributions cover over 70% of health expenditure and core regulatory competences such as level of contribution, benefit package, or provider remuneration are in the realm of umbrella associations of sickness funds and service providers. State authorities have often only a supervisory role although they formerly granted the legal privileges to corporatist actors. Concerning the service provision dimension, public and private non-profit provision is limited to the hospital sector while the other sectors are in the hands of for-profit providers.

Luxembourg also has a long corporatist tradition as it already adopted the Bismarckian reforms in 1901. Since then, the country represents a relatively clear example of a corporatist SHI system. Contributions account over two thirds of overall healthcare funding. Although the definition of the benefit package is under state control and access to and in the healthcare market is comparatively open, societal actors have key regulatory competences by fixing the contribution rate and the remuneration of providers. The latter are completely public or non-profit in the hospital care and for-profit in all other healthcare sectors (Kerr 1999).

In contrast to this, Austria already indicates a greater influence by the state in healthcare financing, regulation, and service provision. In terms of healthcare funding, contributions finance with 47% only relative majority to overall expenses due to a significant share of tax funding (around 30%). The latter is mainly spent for the hospital sector which is nearly completely public (all other sectors are for-profit). With regard to healthcare regulation, the competences of corporatist actors remained only in the definition of the benefit package relatively

uncontested whereas the state directly intervenes in the remuneration of providers and even sets the contribution rate.

Hence, the group of corporatist SHI systems reflects a continuum starting with Switzerland's private heritages, followed by Germany and Luxembourg as relatively clear examples, and finally Austria which tends to the Etatist notion. While the Bismarckian reforms spread to most Continental European countries up to the early 1960s, the model of a corporatist SHI gradually shrank to its home country. While some of the former SHI countries had the state capacity to socialize their healthcare system into a NHS system/scheme in order to safeguard universal access (Denmark and Italy), more veto-ridden SHI countries picked the path of incremental inclusion in order to cover their entire population in the phase of welfare state expansion. When the tide turned toward retrenchment, policymakers lost confidence into the ability of societal actors to contain costs and organize service provision efficiently. Several SHI countries either extended the 'shadow of hierarchy' over corporatist arrangements, or – such as the Netherlands – even abolished them by increasing direct state regulation and market deregulation (Schmid et al. 2010).

6.4 Etatist Social Health Insurance

The Etatist Social Health Insurance is the only completely-mixed healthcare type that does exist in reality. It is characterized by a clear hierarchy of three dimensions: the state is responsible for regulating the system while financing is organized by societal actors and provision has been given to private hands. Eleven countries from our sample show these characteristics and thus, render the Etatist SHI the most frequent type. Among the different countries that belong to this type, three clusters can be identified: first, the CEE group which contains the Czech Republic, Estonia, Hungary, Poland, and Slovakia; second, the Asian group with Japan and Korea; and third, a group of countries that in the past have frequently been categorized as SHI systems such as Belgium, France, Israel, and the Netherlands.

The health systems of the *Central and Eastern European countries* are related by a common history. During Soviet times all countries had shared an integrated tax-based state model of a Semashko system. With the breakdown of the Soviet system, however, the legitimacy of the state health system was lost in transformation and all countries decided to abandon the old system and to introduce a social insurance scheme. Besides ideological reasons to weaken state power, further factors were decisive for establishing a SHI system. First, all countries suffered from shrinking tax incomes due to economic recession and hence had to look for alternative sources of financing. Second, all countries have had some experience with social health insurance in their history and thus, the new SHI systems could be built on former tradi-

tions.⁵ And third, it was hoped to generate greater efficiency through the introduction of a purchaser provider split (Dixon, Langbrunner und Mossialos 2004: 57, 78). Today, insurance contributions make the greatest share of health expenditure with over 60% in all countries and taxes play only a minor role (ranging between 5% in the Czech Republic and 10.4% in Estonia). For all CEE countries private out-of-pocket payments are an important source of funding (with the exemption of the Czech Republic, out-of-pocket payments account for over 20% of total health expenditure), while private health insurance remains marginal.

For the same reason stated above, the implementation of SHI was accompanied by a decentralization of ownership and responsibility, and a partly privatization of provision. As a result, primary care, dental care, and pharmaceutical services are mainly provided by private practitioners and pharmacists today. Hospital care, in contrast, remained almost completely in public ownership. The role of hospital treatment, however, has been steadily reduced over the last two decades which is why total healthcare provision is dominated by private actors today.

While funding has been switched to social insurance and provision has been given to private hands, regulation remains the task of state actors in CEEs. In contrast to traditional social health insurance countries like Germany or Austria, the CEE miss adequate societal actors to whom regulatory powers could be handed over. The newly established health insurance funds have been given some regulatory functions in most countries; but the determination of contributions as well as the benefit package stays with the state in all countries. Moreover, with the exemption of the regulation of remuneration, the role of societal actors remains marginal. We long struggled whether to categorize social health insurance funds of CEE as societal actors at all. Only one fund exists in three countries; Slovakia has got three funds and the Czech Republic holds ten but with dominance of one. In all countries, the Ministry of Health plays an important role in the governance of those funds. In some countries, it even exercises direct control.

Although they do not share a common history of health system creation, the two *Asian countries* Japan and Korea showed – at least until recently – quite similar characteristics. What mainly differentiates these two countries from CEEs is the manifoldness of actors they possess. Both countries have organized financing through a variety of different health insurance funds, with employer funds playing an important role. In 2003, however, Korea merged all different funds into one single insurer in order to handle the problem of risk-pooling and to increase the bargaining power of the social health insurance (for a detailed description see Chun et al. 2009: 140ff), and with it, it has become more similar to CEEs in this respect. Another difference between the two countries is the share of total health expenditure that comes

5 Before the Soviets assumed power, all countries exhibited social health insurance elements. However, coverage ranged from more of 50% in Czechoslovakia to 7% in Poland, where the SHI was less institutionalised. For a more detailed description of the old SHI systems see the particular HiT country reports.

from social insurance contributions: while in Japan this figure amounts to over 70% it scratches 45% in Korea. Instead, money is spent out-of pocket to a far higher share in Korea (27.2%) than in Japan (15.8%). Healthcare provision in Japan and Korea is also characterized by a plurality of social, state, and private actors. In both countries, private for-profit hospitals are not allowed, but private non-profit actors loom large. The diversity of actors is controlled through a strong central regulation with nearly no involvement of other actors.

The last group contains countries that frequently used to be categorized as social health insurance type (Hassenteufel und Palier 2007; Saltman, Busse und Figueras 2004). Yet, this categorization also met criticism. The characterization of the French health system as SHI for example, has been criticized by Steffen for long, arguing that in particular the minor role of societal actors in regulation distinguishes it from traditional SHI countries like Germany (Steffen 2010a; b). Because we look at regulation as an own category, we can account for this feature of state dominance in regulation. Compared to France, societal actors play a greater role in the Belgian healthcare system, yet, mainly in the ambulatory sector. The regulation of the inpatient sector is primarily state-controlled and the two essential decisions about the height of contributions and the content of the health benefit basket are also taken by the state.⁶ These features are also shared by Israel. In Israel, health insurance contributions account for only 37.7% of total health expenditure, but they are slightly higher than the sum of private funds. The Netherlands are a borderline case with only slight dominance of state regulation to societal regulation. The fundamental health reform of the last years has introduced major competition elements among health insurances and at the same time has strengthened state regulation, why we have decided to put the Dutch system into the group of Etatist Social Health Insurance Systems (Götze 2010; Helderma et al. 2005).

Given the different backgrounds of Etatist SHIs, the question arises why all those countries have found a similar solution for organizing their healthcare systems. Moreover, it is conspicuous that this healthcare system type forms the biggest group with more than one third of all countries. Is this constellation, with its hierarchy of state regulation, social financing, and private provision, possibly the best answer to the complexity of healthcare system organization? When compared with its two neighboring types with whom the Etatist SHI type shares two characteristics – NHS on the one and SHI on the other side – it becomes apparent why this type might have been preferred by so many different countries.

The only feature that distinguishes traditional SHI countries and state-led SHI countries are the actors responsible for regulation. Regulation in traditional SHI countries lies within the hands of societal actors (e. g. provider and insurer associations, trade unions, employer asso-

6 In its decisions about the health benefit package, the ministry is advised by several commissions of the National Health Institute (INAMI – RIZIV), some of them are pure expert bodies, other ones are staffed with societal actors. Those commissions give a recommendation, but the ultimate decision lies with the ministry.

ciations, patient organizations). Thus, countries which are missing appropriate societal actors, like France or the CEEs, have to leave the task of regulation to state actors. Another reason to opt for state regulation comes up when there do exist societal actors but those are incapable in reaching solutions because of high competition or due to other reasons.⁷ Generally, even in traditional SHI countries the state plays a crucial role in regulation. It provides the regulative meta-framework for the societal actors and functions as “fleet in being” (Scharpf 1997: 200) which is necessary to make the societal actors find an agreement. In some countries this state regulation is bigger than in others, and in some countries it is that big that regulation becomes dominated by the state.

The Etatist SHI type differs from the NHS type in the way financing is organized. Financing in Etatist SHI systems is based on contributions which has several advantages compared to NHS tax funding. First, the health budget is separated from the general state budget which makes it less vulnerable to misuse and cuts. Second, the legitimacy of contributions is higher because the insured acquire individual entitlements. Third, the blame for contribution increases can be put on social health insurance and does not lie on the politicians. At the same time, social financing fulfills all normative aspects tax financing does (and private financing does not) such as solidarity, inclusiveness, and redistribution.

Summing up, we cannot find that Etatist SHIs are necessarily the best answer to the problem of healthcare system organization; but they offer a quite robust solution that is less ridden with prerequisites than traditional SHI because less societal actors are needed. At the same time they provide stable and high legible funding as well as flexible providers.

6.5 Private Healthcare System

Private Healthcare Systems are characterized by a dominance of private market actors in the coordination of the healthcare system, funding from private sources such as insurance premiums or out-of-pocket payments, and services performed by for-profit providers. This healthcare system type is generally considered as the most common one up to the early 20th century, but since Switzerland switched over to the corporatist SHI in 1996, the private system only prevailed in one, huge OECD country: the United States. Numerous studies deal with the question why universal healthcare coverage has not come true in the US, emphasizing the veto-ridden political system, a state-sceptic public opinion, a weak labor movement, or powerful opposition by physicians (Giaino und Manow 1999; Hacker 2006; Wilsford 1994). Although these factors might have influenced that the US is still the most private healthcare

⁷ It has been shown by various researchers that along with the introduction of competition and other market instruments, the role of the state in regulation has increased too (e.g. Böhm 2009; Noweski 2004).

system in the OECD world, they did not prevent a shift toward a higher collectivization of risks.

Due to public programs such as Medicare, Medicaid, and SCHIP, the public sources already play a very important role in healthcare funding contributing around 46% to overall health funding. Taking tax exemptions into account the private share even drops below the 50 percent level (Cacace und Schmid 2008: 403). Regarding the organization of the healthcare system, the dominance of private actors is also not uncontested. Unsurprisingly, the state has key regulatory competencies in public programs which cover around one fourth of the population. Furthermore, the state as well as societal actors gained importance in the private health insurance which still covers the majority of US citizens. The main explanation of this hybridization is the system-specific deficiency of a PHI to provide affordable access to healthcare for elderly, chronic ill, and poor. Therefore, the state had to amend the privately covered core with several public programs in order to include significant parts of the population in the healthcare system. Further legislation is underway to address groups such as the working-poor which are still un- or underinsured (Oberlander 2010). In July 2012 the Supreme Court approved the mandate to insure which means that the core features of the extensive reform package introduced by the Obama administration stands. Mandatory insurance will however not come into effect until 2014. Hence, although the private nature is still dominant in the US healthcare system, it tends to move toward more public funding and stronger state regulation.

6.6 The Special Case of Slovenia

Slovenia is the only country in our sample that conflicts with our logic of hierarchy among dimensions and actors. In the Slovenian healthcare system, societal actors are in charge of regulation and financing, but service provision lies predominantly in the hand of state actors. We argued above that such a constellation is logically incoherent because for the state – given his power as meta-regulator – it makes no sense to expose itself to the control of other actors. Yet, this situation occurs in Slovenia.

In trying to explain this contradiction, we have to admit that the assumptions of our model might be a bit too simplistic to depict the empirical complexity of actor constellation. Our model views the state as a monolithic actor. In fact, however, there exist various different state actors at different levels with often conflicting interests (Banting und Corbett 2002; Böhm 2009). Thus contrary to our assumption above, it might be rational to delegate power over some state actors to non-state actors, especially if their modes of governance are perceived superior to hierarchal state control. In the case of Slovenia, regulatory competences over state providers have been given to the Health Insurance Institute of Slovenia (HIIS), which, as a single purchaser, contracts with individual state providers. In primary care, where the communities are the main providers, this delegation can be explained as being potentially

superior to direct hierarchical state control of communities. This argument is less catchy for the case of secondary and tertiary care, where one and the same actor – the Ministry of Health – would be responsible for regulation and service provision. Hence, there must be another explanation for the unusual constellation of actors in Slovenia.

The answer can be found in the special history of the Slovenian healthcare system. Slovenia has a long history of social health insurance which even persisted during socialist times. In the course of transformation, this model of regulation and financing was retained, yet with major reorganization. Given societal regulation and financing, and following our hierarchy rule, health service provision in Slovenia should either be social or private but not state-dominated. Health service provision, however, was completely socialized after the Second World War and private provision was prohibited (Albreht et al. 2009), which has been affected service provision until today. During the transformation period, privatization has been a central issue of health reforms (Albreht und Klazinga 2009: 263) but with limited success: on the primary care level privatization is progressing steadily but slowly (Albreht et al. 2009: 69). Secondary and tertiary care, by contrast, are still dominated by the ministry of health (MoH), although private provision in this sector is no longer prohibited. There are several reasons why privatization failed in Slovenia. During the first years of transformation, privatization lacked a legal framework. It was then discontinued several times by changing political settings (Albreht und Klazinga 2009). Moreover, primary care providers complain that privatization has been badly managed and organized by the MoH: definition of aims and designated shares of private providers were missing, co-ordination between municipalities and the MoH was poor, and the conditions of private provision and responsibilities of contracted private providers remained unclear (Albreht, Delnoij und Klazinga 2006: 240). In addition, Albreht and Klazinga also mention the lobbying of public providers as a relevant obstacle to further privatization. And finally, while public providers receive massive state subsidies (all investments are paid by the state: for primary care by the municipalities, for secondary and tertiary care by the MoH) private providers are not eligible for public subsidies (Albreht et al. 2009: 68) and thus are massively disadvantaged compared to public providers.

The reasons that hinder further privatization are manifold and suggest a high resistance to change. It seems as if the long and special history of the Slovenian social health insurance system has resulted in a deep-rooted commitment to the existing system which impedes radical reforms. Yet, incremental change is possible as the case of primary care demonstrates. Therefore we believe that further transformation is possible, although it probably will take a very long way for the Slovenian healthcare system to become a SHI system.

7. CONCLUSION

As indicated in the introduction, most existing typologies of healthcare systems have been developed inductively, while deductive approaches are missing. In order to fill this gap the RW-typology provides a deductive approach starting from the functions all healthcare systems must fulfill. Combining systematically the three dimensions of all healthcare systems, i.e. regulation, financing, and service provision, the typology yields three times three times three, i.e. 27 possible healthcare system types. The problem of this approach is obvious: The sheer number of possible types is too high for the typology to be regarded as a useful tool.

In this paper we therefore try to reduce the number of possible types in different steps: First by theoretical considerations, i.e. once again deductively, we cut the number of plausible types to ten. In a second step, based on available national data as well as OECD data, we classified 30 OECD countries using the RW-typology. Interestingly – with the notable exception of Slovenia, which has been accounted for, – all countries belong to one of five healthcare system types. Thus, only half of the ten types we rendered plausible can be found empirically. The RW-typology therefore makes sense: though it provides for 27 technically possible types and ten plausible types, only five “worlds” appear in reality, each of which has an inherent logic. The fact that so many cells remain empty can be regarded as the first remarkable result of this exercise. A second striking result is the prominence of type 23, the “Etatist Social Health Insurance”, which covers no less than eleven countries. At the first glance this type looks just as a completely mixed system with no inherent logic at all. As demonstrated in section 6.4, however, it *does* have such an internal rationale. This healthcare system type differs from the traditional social insurance system, which can be found in just four countries, only by the regulation dimension, which is predominantly state-led rather than societal. As it has been argued that social insurance systems have been increasingly squeezed between growing competition and state intervention (Rothgang 2009; Rothgang et al. 2010: chapter 6), the Etatist Social Health Insurance can be regarded as a result of such processes, when they work on formerly social insurance healthcare system types. The interesting question arising from this is, whether the four countries still regarded as social insurance systems will also move toward an Etatist Social Health Insurance in the future.

The system type of the Etatist Social Health Insurance in particular also serves to demonstrate the big advantage of this typology. It disaggregates the three “classical” system types, i.e. NHS, Social Insurance System and Private Insurance System further and thus provides a more appropriate classification scheme especially for such cases as France, Japan, Korea, and several Eastern European states that are difficult to treat within the traditional framework.

The classification has obvious limitations, e.g. the under-complex conceptualization of regulation, which does only allow for the archetypical combinations of modes of interactions and corresponding actors (see section 3.2), or the concentration of ownership in the service

provision dimension, which does not allow to account for formal or functional privatization. Nevertheless, it has much more analytical potential than existing inductively gained classification schemes, as it is rooted in theoretical considerations of functions all healthcare systems must fulfill. Moreover, the analyses of the transformation of systems – be it in retrospective or prospective as an informed guess about future developments – is easier within a framework that also acknowledges shifts in just one dimension of the healthcare system thereby guaranteeing to detect when quantitative shifts turn into a qualitative shift. The application of the typology and the methodological approach as developed in this paper on a longitudinal analysis would therefore be a suitable next step in coming to terms with healthcare systems and healthcare system types and their development over time.

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Australia

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>state</i>
<i>remuneration of service providers</i>	<i>state</i>
<i>access of patients to service providers</i>	<i>state/private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	state
Service provision	private

The Australian healthcare system was mainly financed by taxes, which accounted for 68.0% of total spending in 2008 (18.2% out-of-pocket payments, 8.1% private health insurance, 5.5% corporations). The service provision is marked by private providers. Regarding the different shares of expenditure per sector (inpatient care: 34.8%; outpatient care: 28.5%; medical goods & pharmaceuticals: 17.6%) private providers dominate the outpatient care and pharmaceutical care sector, whereas inpatient care is mainly supplied by state facilities (Healy, Sharman und Lokuge 2006: 96, 9, 110; OECD 2011).

Market access as well as remuneration of service providers is state regulated. The organization of inpatient-care and the regulation of hospitals lie within the hands of the states, which are also responsible for granting licenses for physicians working in outpatient-care. The overall health budget is split into three parts: Medicare's share for outpatient-care (Medical Benefits Scheme), the Pharmaceutical Benefits Scheme, and the Australian Health Care Agreements for public hospitals. Physician's fees are fixed within the Medical Benefits Scheme, which is administered by the Department for Health and Ageing together with Medicare. Hospitals are remunerated through the Australian Refined Diagnosis Related Groups (DRGs). Likewise to the physician fees the DRGs are determined by the Department of Health and Ageing, but in consultation with the Clinical Casemix Committee, the Wollongong University, federal and regional health agencies and some other actors (Australian Department of Health and Ageing 2011).

Patients can be treated by a SHI physician or a private doctor, in the latter case they have to pay in advance and can apply for reimbursement from the SHI afterwards. Nearly 60% of all practicing physicians are general practitioners (GP), who act as gatekeepers because patients need a referral in order to consult a specialist. However, patients can freely choose their GP as well as their hospital (Healy, Sharman und Lokuge 2006: xvif, 34, 64; Schölkopf 2010: 113, 33, 36). The benefit package, structured in different schemes, is defined and administered by the Department for Health and Ageing (Australian Department of Health and Ageing 2011).

Austria

Regulation <i>system of financing</i> <i>access of (potential) providers to healthcare markets</i> <i>remuneration of service providers</i> <i>access of patients to service providers</i> <i>definition of the benefit package</i>	societal <i>state</i> <i>societal/state</i> <i>societal/state</i> <i>societal/private</i> <i>societal</i>
Financing	societal
Service provision	private

In 2008, Austria's healthcare system was financed mainly by social security contributions (47.0%), followed by taxes which accounted for 30.2% of total spending (16.3 % out-of-pocket-payments, 4.8 % private insurance). The contribution rate of SHI is determined by the parliament and varies between professions. Service provision is mainly private since private actors dominate the outpatient and pharmaceutical sectors. Inpatient care is mainly supplied by state hospitals (Hofmarcher und Rack 2006: 48, 59-62, 118, 59; OECD 2011).

Market entry in outpatient care is more or less free. However, physicians have to contract with sickness funds in order to get remuneration. Nearly 40% of physicians have subscribed such contracts which also stipulate that benefits are delivered in-kind. In case of consulting a private physician, the patient has to pay in advance and, later on, gets 80% of the regular fee reimbursed. The access to inpatient care is regulated by the states. Those set up hospital plans and assign budgets to all authorized 'funds hospitals'. Nonetheless, also non-funds hospitals can provide services for the public health insurance. Their performance-related remuneration is financed by a different fund, thus overall access is not strictly restricted. The remuneration of physicians working in outpatient care is negotiated between sickness funds and service providers. For inpatient care the states determine the physicians' income. In 1997 DRGs were introduced, which are determined retrospectively by the states in form of point values (Hofmarcher und Rack 2006: 177ff, 90; OECD 2010).

In Austria no gatekeeping exists, and patients can choose SHI-physicians as well as hospitals freely. In case of visiting a physician without SHI-contract the patients have to pay the physician out-of pocket, receiving only 80% of the costs afterwards from the SHI, why most Austrians prefer to go to a SHI-physician (Hofmarcher und Rack 2006: 45, 120f; also Moser 2009; Schölkopf 2010: 55, 113, 34, 36; Wendt und Thompson 2004: 417).

The decision about the pharmaceutical benefit basket is made by the central union of sickness funds. Reimbursable services, however, are determined by the Federal Health Commission (Bundesgesundheitskommission), a committee staffed with different stakeholders. In case of benefits which are not yet included in the benefit basket or in the case of very expensive or special benefits the chief physician of the affected sickness funds has to authorize the individual treatment (Hofmarcher und Rack 2006).

Belgium

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>private/state</i>
<i>remuneration of service providers</i>	<i>societal/state</i>
<i>access of patients to service providers</i>	<i>private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	societal
Service provision	private

In 2008, 61.1% of total health expenditure was financed by social security contributions, which are levied income-related and whose level is determined by the state. Taxes contribute 11.4%, whereas out-of-pocket-payments and private insurances were accountable for 22.2% and 4.7% respectively. 27.1% of total expenditure in 2008 was spent for inpatient care, followed by 20.0% for outpatient care and 16.2% for medical goods and pharmaceuticals. The outpatient and pharmaceutical sectors are dominated by private providers, while inpatient care is mainly provided by societal actors (72% of all hospitals are non-profit). All in all service provision within the Belgian healthcare system is mainly performed by private actors (Gerken und Merkur 2010: 123, 53, 59, 65f, 97; OECD 2011; Schölkopf 2010: 57).

Market access of service providers is state-regulated. For inpatient care the ministry establishes and assigns global budgets. On this basis the regional ministries regulate capacities and authorize beds and disciplines (Corens 2007: 44; Gerken und Merkur 2010: 39). In the outpatient sector once a physician gained a license from one of the provincial committees of the “Federal Public Service Public Health, Food Chain Safety and Environment“ (Belgian ministry) he or she can practice freely, there is no obligation to contract with a sickness fund or accept the conventional fees in order to treat insurants. Thus, physicians can set the prices by themselves. If the price exceeds the sum laid down in the fee schedule, however, the patient has to bear the difference. The fee schedule is negotiated between sickness funds and service providers. Hospitals are remunerated in form of fixed and performance-related budgets determined by the ministry (Gerken und Merkur 2010: 95, 102, 32).

The access for patients to providers is not restricted because patients can choose physicians as well as hospitals freely (Schölkopf 2010: 61, 113, 33, 36). The benefit package is defined by the MoH. Thereby it gets advice from several commissions of the National Health Institute (INAMI/RIZIV), which recommends the in- or exclusion of benefits. The ministry can only depart for societal or budgetary reasons (Cleemput et al. 2008: 50; Corens 2007: 28).

Canada

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>state</i>
<i>remuneration of service providers</i>	<i>state</i>
<i>access of patients to service providers</i>	<i>state/private</i>
<i>definition of the benefit package</i>	<i>societal</i>
Financing	state
Service provision	private

In 2008 the Canadian healthcare system was financed up to 68.1% by non-earmarked taxes, 1.4% social security contributions, 15.5% out-of-pocket-payments, and 13.5% private health insurance (OECD 2011).

In contrast, service provision is mainly delivered by private providers. In 2008, 15.2% of total expenditure was spent for inpatient care, 25.4% for outpatient care, and 19.8% for medical goods and pharmaceuticals (OECD 2011). Thereby, private providers perform basic medical services, dental services and pharmaceutical care. In contrast to that, specialized and inpatient care are supplied by societal providers. Nearly all hospitals are operated as societal facilities (Deber 2002: 29; Marchildon 2005: 81, 95, 101).

Market access and remuneration is regulated by the provinces. In inpatient care they decide which hospitals will be subsidized (and thus can offer services for the public) and in which form and size they will be remunerated (mostly global budgets). Regarding outpatient care, the provincial governments negotiate the fee schedule with service providers. The regional health agencies can decide whether to provide services on their own or to engage private providers (Marchildon 2005: 51f, 65).

Patients have free choice of a GP, for all further contacts they need a referral. Hospitals can be chosen freely within the province (Schölkopf 2010: 38, 113, 33, 36). There is not a nationally uniform benefit package in existence in Canada. Each province defines the range and scope of the publicly reimbursed services in negotiations with the Canadian Medical Association on its own (Marchildon 2005: 35).

Czech Republic

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>societal/state</i>
<i>remuneration of service providers</i>	<i>societal/state</i>
<i>access of patients to service providers</i>	<i>private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	societal
Service provision	private

The Czech healthcare system was largely financed by social security contributions (77.1% of total expenditure in 2008) which are determined by the state. Solely 0.2% of total expenditure was covered by private health insurance, 5.0% was funded by taxes, and out-of-pocket-payments were accounted for 16.1%. Service provision is mostly private. In 2008, 29.4% of total expenditure was spent for inpatient care, 25.7% for outpatient care, and 24.0% for medical goods and pharmaceuticals (OECD 2011). While inpatient care is mainly provided by public hospitals, outpatient and pharmaceutical care are dominated by private providers. Summing up the different shares of private and public providers in the three sectors, 45.0% of total health expenditure is provided by private providers and solely up to 26.0% by public providers (Bryndová et al. 2009: xviii, 81; and own calculations).

Regional public agencies regulate the market access in outpatient care as well as in inpatient care. They decide about the establishment of physicians, who afterwards have to contract with the sickness funds to receive remuneration. Regarding inpatient care the process is similar. Once a hospital is authorized by the regional agency to enter the market, it has to contract with the sickness funds. Sickness funds and hospitals negotiate the level of remuneration, composed of global budgets, DRGs and fees for services. Actually the state intended to introduce the same procedure in outpatient care. Nevertheless, in the past the sickness funds and service providers have proofed that they are unable to reach an agreement, thus the ministry had to enact a reimbursement directive. In 2006 the opportunity for selective contracting was introduced (Bryndová et al. 2009: 45, 8, 54).

There is nearly no gatekeeping in the Czech Republic. Patients can choose their GP as well as their specialist. Only for the treatment in a hospital a referral is required (Bryndová et al. 2009: xviii, 81). The health benefit package is mainly determined by the state. Reimbursable pharmaceuticals are defined by SUKL, a body under the auspices of the MoH; the biggest sickness fund determines reimbursable medical aids; and medical services are discussed and defined within a working group of the ministry, in which representatives of the sickness funds, service providers, hospitals and the industry participate (Bryndová et al. 2009: 46).

Denmark

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>societal/state</i>
<i>remuneration of service providers</i>	<i>societal/state</i>
<i>access of patients to service providers</i>	<i>state/private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	state
Service provision	state

The Danish healthcare system was mainly financed by taxes, which accounted for 84.3% of total spending in 2008. 13.9% of total expenditure was funded by out-of-pocket-payments, and 1.8% was covered by private insurance(OECD 2011).Healthcare services in Denmark are mostly provided by public providers, who supply hospital as well as pharmaceutical care. Solely outpatient care is mainly delivered by private providers. Nearly 95.0% of all hospitals are operated by the state (OECD 2011). Private providers are important only in the outpatient sector. Pharmaceuticals are provided by community and hospital pharmacies. Pharmacies are privately owned, yet, state regulation is so strong (e.g. price regulation, restriction of location, fixed gross profits, and a financial equalization system) that they possess more characteristics of public entities than private ones, why we have categorized them as state (Strandberg-Larsen et al. 2007: 39, 81f, 101ff).

Access to the hospital market is regulated by the National Board of Health, a body settled at the MoH. The access to the outpatient healthcare market is controlled by the regions in cooperation with the physicians associations. Both negotiate a ratio of physician per inhabitants, while afterwards the regions grant licenses according to the agreed ratio. The remuneration of physicians working in outpatient care is negotiated between the regions and the professional associations. Nearly 60.0% of all physicians work as salaried employees. Hospital remuneration is twofold, 80.0% of expenditure is covered by assigned budgets and the remaining 20.0% are balanced via DRGs (Strandberg-Larsen et al. 2007: 42, 62).

Residents can choose between two models. Nearly 99.0% of the population is in category I. They have to subscribe with a GP, which can be chosen freely within a radius of 10 km of the living place. Those have free access to emergency care, dental care, chiropractors, ophthalmology and ENT care, for all others they need a referral of their GP. In category II patients enjoy complete freedom of choice, but they get solely the rate reimbursed, which is paid for a Category-I-patient. The hospital can be chosen freely, but a referral from the GP is necessary (for Category-I-patients) (Strandberg-Larsen et al. 2007: 32). The Danish Medicines Agency, belonging to the MoH, determines a list of pharmaceuticals which are reimbursable in the whole country. Regarding medical services, each region negotiates its own healthcare reimbursement scheme with the service providers (Strandberg-Larsen et al. 2007: 42, 79).

Estonia

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>state</i>
<i>remuneration of service providers</i>	<i>state</i>
<i>access of patients to service providers</i>	<i>state</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	societal
Service provision	private

The Estonian healthcare system was mainly financed through social security contributions which accounted for 67.8% of total expenditure in 2009. Out-of-pocket and taxes hold a share of 21.1% and 10.4% respectively. Private health insurance played no significant role (only 0.2%). Social security contributions are levied as an income-related, earmarked social tax, whose level is determined by government (Koppel et al. 2008: 63; OECD 2011).

In 2009 25.8% of total expenditure was spent for inpatient care, which is dominated by state-run facilities (approx. 90.0% of all hospital beds are located in state hospitals). Outpatient care (with a share of 21.9%), in the past completely delivered by salaried public providers, has meanwhile more and more passed into private and societal hands. Hence physicians are increasingly self-employed, although in effect nearly all of them are contracted by the Estonian Health Insurance Fund (EHIF). 25.8% of total expenditure was spent on pharmaceutical care, with pharmacies being mainly privately owned (Koppel et al. 2008: 132, 43-45, 51, 55f; OECD 2011).

Access to care and remuneration of providers are mainly regulated by state actors. All providers, whether hospitals, physicians or other, have to contract with EHIF⁸ in order to deliver services and receive remuneration. Contracts can be concluded collectively or selectively, EHIF has no obligation to contract with providers except in case of the “Hospital Master Plan 2015”-hospitals. Payment mechanisms and prices are not directly subject of the contracts, but are fixed within the health service list (the health benefit package of Estonia). Nonetheless, the EHIF as well as provider associations can compile and propose modifications of the price list, which needs to be approved by the ministry. Providers who have no contract with the EHIF can set their own prices, although the government determines a ceiling amount. Physicians working in outpatient-care and specialists are mainly paid by fees for services, the latter ones additionally by per diem and diagnosis-related payments. Primary care providers earn capitation fees. Hospitals are remunerated by a mix of case payments, per diem rates and service fees (Koppel et al. 2008: xviii-xix, 155f).

8 EHIF is a legal person in public law and describes itself as independent. Yet, its supervisory board that controls nearly all decisions consists of ministers and parliamentarians (Estonian Health Insurance Fund 2011).

In Estonia family physicians function as gatekeepers. Patients are assigned to their family physician, although they can apply for a change. To access specialized care patients need a referral (exceptions are made for several specialties) (Koppel et al. 2008: 144f).

Since 2002 the benefit package is defined by EHIF, nonetheless an approval from the formerly exclusively responsible ministry and government is required.⁹

9 In 2005 the “Committee for Health Policy Assessment of the List of Health Services” was founded, an advisory body aimed to establish greater consensus between providers and experts. However, the committee has not been staffed since 2007, since the new government failed to appoint members (Koppel et al. 2008: 56).

Finland

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>state</i>
<i>remuneration of service providers</i>	<i>state</i>
<i>access of patients to service providers</i>	<i>state</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	state
Service provision	state

In 2008 Finland's healthcare system was financed up to 58.3% by taxes; and solely 15.4% of total expenditure was funded by social security contributions (out-of-pocket-payments were accounted for 20.4%, private health insurance for 2.2%). In the same year 24.6% of total expenditure was spent for inpatient care, 29.5% for outpatient care and 17.0% for medical goods and pharmaceuticals (OECD 2011). Both the outpatient and the inpatient sector are dominated by a state service provision except dental care which is supplied by a mixture of private and state providers. Compared to that, pharmaceuticals are dispensed by pharmacies that are mainly privately owned (Vuorenkoski 2008: 92, 105f, 9, 14,).

Market access and remuneration of healthcare personnel in outpatient care as well as inpatient care are also regulated by the state. Hospital planning and the engagement of healthcare personnel in outpatient care fall to the municipalities. Private providers have to apply for a license at the provinces. GPs and hospital physicians are salaried; the small part of private physicians is paid according to a fee schedule which is negotiated between professional associations and municipalities. The remuneration of hospitals is regulated by each district on its own, why it varies within the whole country (Vuorenkoski 2008: 68, 75, 96, 135).

Patients have neither free choice of physicians nor of hospitals. They have to consult the physician in their local community health centre or the local hospital, respectively. Additionally, the family doctors act as gatekeepers and patients need a referral in order to visit a specialist or hospital (Schölkopf 2010: 43, 113, 34, 36).

The competence to define the benefit package is shared between municipalities and the ministry for social affairs and health. The latter determines which pharmaceuticals shall be reimbursed, the former decides about the other benefits (Vuorenkoski 2008: 31, 53).

France

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>societal/state</i>
<i>remuneration of service providers</i>	<i>societal/state</i>
<i>access of patients to service providers</i>	<i>state/private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	societal
Service provision	private

The French healthcare system is mainly financed by social security contributions, which accounted for 72.6% of total spending in 2008 (5.4% taxes, 7.6% out-of-pocket-payments, 13.6% private health insurance). The contribution rate is determined by the state (OECD 2011; Schölkopf 2010: 57).

Service provision is largely private. In 2008 29.1% of total spending was used for inpatient care, which is mainly provided by public hospitals. 17.1% of total expenditure was spent for outpatient care and 20.8% for medical goods and pharmaceuticals, which both are dominated by private providers. The ownership of inpatient care facilities is mainly state (64.5%), but about one third of the hospitals is run by societal (13.9%) and private actors (21.6%), respectively (Chevreul et al. 2010: 175, 98ff; OECD 2011).

Market access and remuneration of healthcare personnel of the hospital sector is controlled by the state. In the outpatient sector market access and remuneration are determined by the SHI in cooperation with the professional associations. Physicians practicing privately have to register with their professional associations and agree to the tariff conventions negotiated periodically between the associations and the SHI. If physicians want to work in “Sector 2”, which allows them to charge higher prices, they need to apply for admission to the SHI. Hospitals are regulated by the national ministry and regional health authorities. The former determines the number of beds, the remuneration in form of the level of DRGs and some other provisions. The latter set up concrete hospital plans (Chevreul et al. 2010: 93, 8, 106f, 22f).

Patients have free choice of doctor. In 2004, however, a semi-gatekeeping-model was introduced (“parcours de soins coordonnés“), which provides strong financial incentives to see the preferred GP before consulting a specialist. Meanwhile, up to 80.0% of all insurants have registered with a preferred GP. The choice of hospital is free (also Chevreul et al. 2010: 183; French Health Insurance 2011; Schölkopf 2010: 58, 113, 33, 36).

Generally, the MoH is in charge of determining the benefit package concerning pharmaceuticals, medical aids and devices. The national union of sickness funds (UNCAM) decides about the in- or exclusion of medical services, nonetheless the MoH can object the decisions. The decision about the level of reimbursement is also taken by UNCAM (Chevreul et al. 2010: 57).

Germany

Regulation (aggregated)	societal	
<i>Regulatory framework</i>	<i>Social Insurance</i>	<i>Private Insurance</i>
Regulation	societal	private
<i>system of financing</i>	<i>societal</i>	<i>private</i>
<i>access of (potential) providers to healthcare markets</i>	<i>societal/state</i>	<i>private</i>
<i>remuneration of service providers</i>	<i>societal</i>	<i>state/private</i>
<i>access of patients to service providers</i>	<i>private</i>	<i>private</i>
<i>definition of the benefit package</i>	<i>societal</i>	<i>state/private</i>
Financing	societal	
Service provision	private	

The German healthcare system was financed by 70.2% through social security contributions in 2008 (7.1% taxes, 9.7% private health insurance, 12.3% out-of-pocket payments, OECD 2011).

In 2008, 26.6% of total health expenditure was spent for inpatient care, 22.2% for outpatient care and 19.8% for medical goods and pharmaceuticals. Health service provision in Germany is mostly in private hands. All in all outpatient and pharmaceutical care are supplied by private actors. The hospital sector is mainly operated by state providers who run about 40.0% of all beds in 2008. Besides that private and societal providers owned nearly one third of all hospital beds each (Busse und Riesberg 2005: 110ff; OECD 2011).

Regulation depends on the type of coverage. Around 88.0% of the population is covered by social health insurance. The remainder holds a contract with a private health insurer or belongs to a special scheme (Rothgang et al. 2010: 148). With regard to the SHI, the level of the contribution rate is fixed uniformly for all sickness funds by the federal government since 2009. Nevertheless, sickness funds are allowed to charge an additional contribution or to pay back part of the premiums (Schölkopf 2010: 57). Market access as well as remuneration is organized and regulated by societal actors. In order to treat SHI patients and to get public reimbursement, physicians as well as hospitals have to subscribe with the SHI. The levels of remuneration are negotiated between professional associations and the SHI and between hospital associations and SHI, respectively. However, within inpatient care the federal states (Bundesländer) are also involved in terms of supply plans (Simon 2010: 181, 211, 62, 314f). Patients can choose freely which physician they want to consult. Attempts to strengthen the role of GPs by introducing a fee for initial consultations without referral failed. The choice among hospitals is free (Simon 2010: 149, 263). The benefit package is defined by the Federal Joint Committee (Gemeinsamer Bundesausschuss), a body composed of representatives of the sickness funds, service providers and three neutral members.

In terms of the PHI, the funding relies on risk-related contracts between applicants and private insurers. The state only intervenes with the (still rarely sold) basic tariff including a unified maximum premium. There are no limitations in the access of healthcare providers to the

market of privately insured besides the legal and professional authorization to provide medical services. Remuneration of services providers is affected by state regulation such as the tariff decrees for physicians and DRGs in the hospital sector. But doctors are still able to affect their revenue independently by the choice of the adequate multiplier for the defined fee scheme. The access of patients to providers is nearly without restrictions. Although the benefit package of private plans is in general fixed by the individual contract (except for the basic tariff), the state demands coverage of at least in- and outpatient care in order to fulfill the mandate to insure (Rothgang et al. 2010: 154f, 9, 61, 66, 68).

Hungary

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>state/societal</i>
<i>remuneration of service providers</i>	<i>societal</i>
<i>access of patients to service providers</i>	<i>private/state</i>
<i>definition of the benefit package</i>	<i>state/societal</i>
Financing	societal
Service provision	private

In 2008 60.8% of total health spending in Hungary was financed by social security contributions (out-of-pocket payments were accounted for 24.5%, taxes for 10.0% and private health insurance for 2.2% of total spending). The contribution rate is fixed by the parliament (Gaál 2004: 15; OECD 2011).

In 2008 25.9% of total expenditure was spent for inpatient care, 20.4% for outpatient care and 35.5% for medical goods and pharmaceuticals. Healthcare services are mainly provided by private providers, pharmaceuticals are dispensed by privately owned pharmacies. The inpatient sector is dominated by state actors who run 97.0% of all hospitals. In contrast to that, outpatient care is supplied by a mixture of private and state actors (Boncz et al. 2004: 254; Gaál 2004: 68; OECD 2011).

Outpatient-care is regulated by societal as well as state actors. The state sets up supply plans which determine service provision. Additionally, the National Health Insurance Fund Administration (NHIFA) negotiates concrete supply contracts with the provider associations. Physicians have to subscribe these contracts in order to be entitled for remuneration, which is paid in form of capitation fees. The level of the capitation fees depends on factors like the patients' age, age and education of the physician, location and size of the doctors' practice, and the number of patients. Specialists receive a fee for service payment based on a point value system. Both, service fees and capitation fees, are negotiated between service providers and NHIFA. The hospitals are remunerated by DRG's, whereby the point values are set annually by NHIFA (Gaál 2004: 71f, 90, 5; also Grunenbergs 2005).

GP's are obligated by law to act as gatekeeper. Access to specialist shall not be possible without a referral. Effectively, there are a lot of exceptions (e.g. dermatology, ENT, gynecology, urology, and oncology). Additionally, physicians have no incentive to refuse referrals to their patients (Gaál 2004: 70).

The range of public reimbursed benefits is generally determined by two laws. Decisions concerning pharmaceuticals and medical aids are made by the NHIFA, the remaining refundable benefits are explicated within ministerial decrees (Gaál 2005: 8, 11, 33, 40ff).

Iceland

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>state</i>
<i>remuneration of service providers</i>	<i>state/societal</i>
<i>access of patients to service providers</i>	<i>private</i>
<i>definition of the benefit package</i>	<i>state/societal</i>
Financing	state
Service provision	state

In 2008 the Icelandic healthcare system was financed mainly by taxes, they accounted for 54.9% of total spending (28.3% social security contributions, 15.3% out-of-pocket-payments). Health services are mainly provided by public providers. 26.9% of total expenditure in 2008 was spent for inpatient care, 25.3% for outpatient care and 16.0% for medical goods and pharmaceuticals. The latter is in the hands of private providers, but in the inpatient sector they do not play any role. The outpatient sector is partly private and public (OECD 2011).

Market access for provider as well as the remuneration is regulated by the state. Regarding inpatient care the MoH has to approve all health facilities. It also determines supply plans, the benefits which shall be offered and it assigns the budgets. In outpatient-care the ministry administers the physician's registration. Most physicians are employed in public health centers and thus work on a salaried basis. Private physicians (mostly specialists) have to contract with the State Social Security Institute (SSSI) or the ministry, respectively. Their fees are negotiated by the Medical Association and the health authorities (Halldorsson 2003: 19-24, 57, 75-7, 84).

The access of patients to service providers is not restricted at all (Halldorsson 2003: 38). Sickness funds and service providers negotiate the scope of the benefit package with the exception of pharmaceuticals. The positive list for pharmaceuticals is determined by the Icelandic Medicine Pricing and Reimbursement Committee (Lyfjaverdsnefndrikisins), a body settled under the auspices of the MoH.

Ireland

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>state</i>
<i>remuneration of service providers</i>	<i>state</i>
<i>access of patients to service providers</i>	<i>state</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	state
Service provision	private

In 2008, more than three quarters of total healthcare spending in Ireland was financed by taxes (76.3%). Out-of-pocket payments were accounted for 14.4%, whereas 0.6% and 7.9% came from social security contributions and private health insurance contributions, respectively (OECD 2011; Schölkopf 2010: 19).

As data about healthcare spending in the different sectors is missing for Ireland, it was difficult to categorize health service provision. McDaid et al. (2009: 170) suggest that approximately half of all healthcare spending is disbursed in the hospital sector. This figure includes specialized outpatient care, which is provided in Ireland mainly by specialists working in hospitals. 72.6% of all hospital beds are public and half of the remaining beds are societal and private respectively. GPs work in private practice and most pharmacies are privately owned, why we categorize service provision in Ireland as private (Brick et al. 2010: 219; Health Service Executive Ireland 2008: 6).

Market access and remuneration are regulated by the state. Physicians have to contract with the Health Service Executive (HSE) in order to be allowed to provide services for the public healthcare system. Hospital planning falls likewise to the HSE, which establishes a national health strategy including budget assignments. GPs who have subscribed with the HSE receive a weighted flat rate as well as fees for certain special services. Most specialists are working as salaried personnel in hospitals (McDaid et al. 2009: 99, 107, 12, 71).

The access of patients to the public healthcare system is also regulated by the state. Patients with full entitlements (persons older than 70 years and persons with a low income) have to consult physicians who have contracted with the HSE. Patients with a restricted entitlement on the other hand can choose their physician freely. However, in order to consult a specialist, patients need a referral. All patients that want to receive publicly reimbursed services are assigned to a hospital (Schölkopf 2010: 20f, 113, 34, 37).

The benefit package, which is structured in different schemes (e.g. Maternity Care Scheme, Drugs Scheme), is determined as well by the HSE (McDaid et al. 2009: 71).

Israel

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>societal/state</i>
<i>remuneration of service providers</i>	<i>societal/state</i>
<i>access of patients to service providers</i>	<i>societal/private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	societal
Service provision	private

In 2008, the Israeli healthcare system was financed up to 37.7% by social security contributions, which is only slightly more than comes from private resources: out-of-pocket payments accounted for 29.7% and private health insurance contributions for 6.4%. 15.3% of total spending was funded by taxes. The tax level and the social security contribution rate are decided on by the state (OECD 2011).

In 2006, 28.5% of total expenditure was spent for inpatient care, whereas 46.0% was dispensed in the outpatient care sector and 14.3% for medical goods and pharmaceuticals (OECD 2011). Hospital care is either provided by public hospitals (approx. 50.0% of all beds), or by hospitals that are directly owned by the health plans (approx. 33.0% of all beds) or by other private or societal actors. Outpatient care is provided by private physicians as well as by physicians that are employed by the health plans (40.0% of primary care and 9.0% of dental care providers are salaried). 60.0% of the pharmacies are run privately, whereas the remaining pharmacies are located within hospitals or owned by health plans. Taken the three sectors together, private provision slightly exceeds societal provision (health plans) (Rosen und Samuel 2009: xx, 114ff, 31).

Outpatient care is mainly organized by societal actors. In order to provide services to insureds of one of the five big health plans, physicians can work either directly for a health plan on a salaried basis, or they work privately on a fee-for-service basis. At Clalit¹⁰, the biggest health plan, most physicians work on a salaried basis, whereby the salary is a mix of passive capitation fees and a part which is correlated to the experience of the physician. The level of both is determined by collective negotiations between the health plan and service provider associations. Nonetheless, health plans are not legally bound to collective agreements in general and can determine fees and tariffs without incorporation of service providers (effectively most health plans incorporate service providers). 25.0% of Clalit's insureds consult private physicians, which earn a fee determined unilaterally by Clalit. In contrast, inpatient care is regulated by the state: The MoH is responsible for hospital planning and organization (e.g.

10 Clalit insures more than 80% of the population and serves as kind of a leader for the other health plans, which more or less follow Clalits model (Rosen und Samuel 2009: 13).

licensing, number of beds), the remuneration – composed of fee-for-services, daily rates and Israeli DRG's – is determined by the government (Rosen und Samuel 2009: 57-72).

Patients' access to health services is restricted through a primary care physician-centered model: Physicians (incl. specialists) working in outpatient care can be chosen freely but then function as gatekeepers, referring patients to hospitals and specialists working in inpatient care. Health plans are allowed to assign their insurants to hospitals; effectively they do not use this right and patients can choose the hospital freely (Rosen und Samuel 2009: 30, 118).

Each year the MoH provides an additional budget for the inclusion of new services into the benefit basket. After pre-selection and detailed health technology assessments by the ministry a public committee consisting of representatives of the health plans, the general public, doctors and economists gives a recommendation which services to include. Based on this recommendation the MoH makes its final decision.

Italy

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>state</i>
<i>remuneration of service providers</i>	<i>state</i>
<i>access of patients to service providers</i>	<i>state/private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	state
Service provision	private

The Italian healthcare system was mainly financed by national, regional and municipal taxes, which were accounted for 77.1% of total spending in 2008. 19.5% was expended by out-of-pocket payments, social security contributions and private health insurance solely made up 0.1% and 1.0%, respectively (OECD 2011).

It is nearly impossible to categorize health service provision in Italy. According to official data from the Italian Ministry of Health for 2010, 41.52% of total public health expenditure was spent on private provision and 63.93% for public goods and services (IStat 2011). Given that 77.0% of total health spending is public, this means that health provision in Italy is slightly private. Yet, this data is not comparable with the data used to categorize the other countries. Furthermore, it is nearly impossible to categorize physicians as purely private or public, because most public salaried physicians additionally work as private doctors.

Market access as well as remuneration of service providers is regulated by the state. Physicians working in outpatient care have to contract with the government and receive capitation fees, whose level is negotiated between the government and the service provider associations. Hospital planning and remuneration is organized by the regions which authorize facilities and assign resources. Hospital physicians earn a monthly salary (Scalzo et al. 2009: 62, 71, 91, 103f, 11).

The access of patients to service providers is restricted by a GP-centered model: Patients have to choose a family physician within their region, who refers patients if necessary to specialists and hospitals. The choice of the specialist or hospital is free (Schölkopf 2010: 28f, 133, , 6).

The scope of the benefit package is negotiated between the central government and the regions, except of pharmaceuticals. The publicly reimbursable pharmaceuticals are determined by the AIFA (Italian Medicines Agency), a state agency for pharmaceuticals (Scalzo et al. 2009: 124).

Japan

Regulation	state
<i>system of financing</i>	<i>state/societal</i>
<i>access of (potential) providers to healthcare markets</i>	<i>state</i>
<i>remuneration of service providers</i>	<i>state</i>
<i>access of patients to service providers</i>	<i>private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	societal
Service provision	private

The healthcare system in Japan was mainly financed by social security contributions, which formed about two thirds of total revenues in 2008 (70.8%). In contrast to that, out-of-pocket payments were accounted for only 15.8% of the health expenditure and taxes and private health insurance hold a share of 9.9% and 2.4%, respectively (OECD 2011). The contribution rate of the national health insurance, which insures 42.0% of the population, is determined by the municipalities. The occupational sickness funds (52.0% of the population) set their rate individually (Schölkopf 2010: 63f).

All in all, health services are mostly supplied by private providers, but there are differences between the sectors. Inpatient care is mainly provided by societal actors, which own 63.5% of all hospital and clinic beds (compared to 24.3% state-owned, 6.2% privately-owned, 6.0% ownership unknown, Statistics Bureau of Japan 2011). On the contrary, outpatient and pharmaceutical care are mainly supplied privately because hospitals/clinics and dental hospitals are mostly run privately as well as all pharmacies (Statistics Bureau of Japan 2011; Tatara und Okamoto 2009: 25).

Market access and remuneration of healthcare personnel is regulated by the state (MoH, prefectures). The fee schedules for outpatient care are negotiated between the sickness funds and the associations of the service providers. However, an approval of the ministry is required. This fee schedule is likewise applicable for inpatient care, though some hospital physicians earn a regular salary or are remunerated by a mix of service fees and a (lump-sum) salary (Tatara und Okamoto 2009: 39, 67f, 70-4, 85, 110).

In general patients can choose a doctor or hospital without restrictions. In case of university hospitals however, patients need a referral, otherwise they have to pay a higher fee (Schölkopf 2010: 65, 133, , 6; Tatara und Okamoto 2009: 109).

The benefit package is defined by the MoH, whose decision-making is based on recommendations of the Central Social Insurance Medical Care Committee (Tatara und Okamoto 2009: 73).

Korea

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>state</i>
<i>remuneration of service providers</i>	<i>societal/state</i>
<i>access of patients to service providers</i>	<i>private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	Societal
Service provision	Private

In 2008, the biggest share of total healthcare expenditure in South Korea was funded by social security contributions, which were accountable for 45.1% of total expenditure (37.2% out-of-pocket payments, 12.2% taxes, 4.6% private health insurances). It is worth to mention that the share of private revenues (out-of-pocket payments and private health insurance) was 41.8%, which is close to the share of the social security contributions (OECD 2011). The ministry determines the rate of social security contributions (Chun et al. 2009: 56).

Service providers are mainly private despite existing differences between the sectors. Inpatient care and ambulatory care in hospitals and clinics was mostly supplied by societal actors. In 2008, they owned 68.4% of all hospital and clinic beds. 11.3% of all beds were state-owned and 20.3% privately owned, whereby private for-profit hospitals are prohibited by law (Chun et al. 2009: 84, 114, 6-9; OECD 2011). On the contrary, primary care as well as pharmaceuticals are delivered nearly completely by private providers. Taken together, private providers dominate health service provision.

Market access is regulated by the state. Physicians are obliged to contract with the NHI. The fee schedules are negotiated between the physicians' associations and the health insurances. In outpatient care, most physicians are remunerated through fee-for-service payments. Physicians working in public facilities or in hospitals are salaried. Since 2002 hospitals are reimbursed partially by a DRG-system (Chun et al. 2009: 24, 7, 52, 65-7).

The patients are free in their choice of a GP, specialist or hospital. Only in the case of tertiary care facilities a referral is required (Chun et al. 2009: 36f).

The benefit package is defined by the Korean Ministry of Health and Welfare, which is advised by the Health Insurance Review and Assessment Service (HIRA).

Luxembourg

Regulation	societal
<i>system of financing</i>	<i>societal</i>
<i>access of (potential) providers to healthcare markets</i>	<i>private/state</i>
<i>remuneration of service providers</i>	<i>societal</i>
<i>access of patients to service providers</i>	<i>private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	societal
Service provision	private

The healthcare system of Luxembourg was mainly financed by social security contributions which had a share of 67.1% of total revenues in 2008 (17.0% taxes, 12.4% out-of-pocket-payments, 3.2% private health insurance, OECD 2011). The sickness funds are responsible for the determination of the contribution rate, which is uniform for all funds (Schölkopf 2010: 62).

In 2008, 24.8% of total expenditure was used for inpatient care, 27.7% for outpatient care and 11.2% for medical goods and pharmaceuticals. Thereby most of the services were provided privately. Hospitals were predominantly owned by public or societal actors in 2004 (13 of 14 hospitals), whereas all physicians in outpatient care were self-employed (WHO Regional Office for Europe 2006: 26).

Market access in outpatient care is possible without further restrictions. Once physicians have obtained a practicing license they can provide services for the public system. On the contrary, access to the inpatient care market is restricted by the state in form of detailed capacity plans, the so-called National Health Plans. The remuneration of healthcare providers is determined annually within negotiations between sickness funds and service providers. Hospital budgets are based on annual negotiations between the particular hospital and the Union of Sickness Funds (European Observatory on Health Care Systems 1999: 19, 38).

GPs and specialists have no gatekeeping function, the choice of doctors and hospitals is free (Schölkopf 2010: 63, 113, 34, 37).

The definition of the benefit package is regulated by the state. The reimbursement of pharmaceuticals is determined by the Social Security Medical Inspectorate (Contrôle Médicale) which consists of members with civil servant status and is supervised by the ministry. The reimbursement decision concerning medical services and devices is made by the ministry, which is advised by the Nomenclature Commission. This commission consists of four representatives of the ministry and two representatives of the physicians and sickness funds each and is also supervised by the ministry (European Observatory on Health Care Systems 1999: 49; Ministry of Social Security of Luxembourg 2009).

Netherlands

Regulation	state
<i>system of financing</i>	<i>societal</i>
<i>access of (potential) providers to healthcare markets</i>	<i>societal/state</i>
<i>remuneration of service providers</i>	<i>societal/state</i>
<i>access of patients to service providers</i>	<i>state/private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	societal
Service provision	private

In 2008 the largest share of revenues in the Dutch healthcare system was generated by social security contributions which were accountable for 70.2% of total revenues (5.1% taxes, 5.6% private health insurance, 5.7% out-of-pocket payments, OECD 2011). The contribution rate is composed of a lump-sum premium, determined by each health insurance, and an income-related contribution, fixed by the state (Schäfer et al. 2010: 74; Schölkopf 2010: 68f).

Service provision is mostly supplied privately. Hospitals are not allowed to be owned by private for-profit providers. Except for university hospitals, there are no state-owned hospitals. Societal-owned facilities dominate this sector (100% of general hospitals) (Götze 2010: 32). On the other hand nearly all ambulatory physicians work privately and pharmacies are also exclusively run privately (Schäfer et al. 2010: xxiv, 152, 6).

Service providers have to contract with the health insurances in order to get public remuneration. Without having contracted providers can indeed supply services, but often health insurances do not fully reimburse these services, thus the patient has to bear the difference. For GPs the Dutch Healthcare Authority (Nederlandse Zorgautoriteit) defines ceiling prices. Nonetheless, the sickness funds are also allowed to contract selectively with individual physicians and to set lower prices. In inpatient care (includes specialized care) the DBC system (Diagnostic Treatment Combinations; Dutch type of DRG) is in use since 2005. These DBCs are partly defined by the Dutch Health Care Authority (A-DBC) and partly by negotiations between the particular hospital and the sickness funds (B-DBC) (Schäfer et al. 2010: 85-8, 92-4, 153f, 75; Schut und Ven 2011: 109-23).

Patients have free choice of GPs and hospitals. GPs have a gatekeeping function for specialized care, where a referral is required (Schäfer et al. 2010: 37; Schölkopf 2010: 71, 113, 33, 36). The benefit package is determined by the Ministry of Health and Social Welfare (MoHWS), whose decision-making is supported by the Health Care Insurance Board (CVZ), which recommends the in- or exclusion of benefits (Schäfer et al. 2010: 65, 100).

New Zealand

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>state</i>
<i>remuneration of service providers</i>	<i>state</i>
<i>access of patients to service providers</i>	<i>state/private</i>
<i>definition of the benefit package</i>	<i>state/societal</i>
Financing	state
Service provision	private

New Zealand's healthcare system was mainly financed by taxes which were accounted for more than 70.0% of total health revenues in 2008 (13.9% out-of-pocket payments, 10.1% social security contributions, 4.8% private health insurance, OECD 2011). The tax rate is defined by the parliament (Schölkopf 2010: 34).

The largest share of service provision is delivered by private providers. In 2001, 52.0% of all hospital beds were state-owned, whereas the remaining 48.0% were divided between societal and private owners. Outpatient and pharmaceutical care are mostly provided (except specialized care) by private physicians and pharmacists (French, Old und Healy 2001: 30, 81; McKinlay Douglas Limited 2005: 22; Zurn und Jean-Christophe 2008: 10).

Market access and remuneration of healthcare providers within both inpatient and outpatient care is regulated by the state. The service providers have to conclude a service agreement with the state-owned District Health Boards (DHBs). The remuneration of the GPs is composed of fee-for-service payments and capitation fees, whereas hospital physicians are salaried. Services supplied by hospitals are remunerated on basis of DRGs (French, Old und Healy 2001: 36, 103f; Ministry of Health of New Zealand 2011).

GPs have a gatekeeping function: patients need a referral for the access to specialized care. The choice of the GP is free (Schölkopf 2010: 35, 134, 6).

The benefit package is defined on the local level. Only the pharmaceutical schedule is determined nationally uniform by the Pharmaceutical Management Agency (PHARMAC), which is an independent agency that is responsible for the whole pharmaceutical budget (French, Old und Healy 2001: 39, 98f).

Norway

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>state</i>
<i>remuneration of service providers</i>	<i>state</i>
<i>access of patients to service providers</i>	<i>state/private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	state
Service provision	state

The Norwegian healthcare system is mainly financed by taxes, which had a share of 72.4% of total expenditure in 2008 (14.9% out-of-pocket payments, 11.9% social security contributions). The tax rate is determined by the state and the municipalities (OECD 2011; Schölkopf 2010: 44).

Health services are largely provided by public actors (Johnsen 2006: xiv, 95f, 119). Regarding outpatient care most physicians work as publicly salaried employees (e.g. in 2006, solely 3.0% of all consultation were delivered by private working physicians). About 90.0% of all hospital beds are located in state-owned facilities (compared to 6.7% private and 2.9% societal beds, OECD 2011). In pharmaceutical care the largest share of pharmacies is privately-owned (81.9% private, 5.1% state, 13.0% unknown ownership, Norwegian Pharmacy Association 2009: 5).

Both, market access and remuneration of healthcare providers are regulated by the state. The physicians are mainly salaried by the state (except dentists) and hospitals are mainly reimbursed by a mixture of fixed and flexible remuneration which is determined by the state (Johnsen 2006: 52-5).

The patients' free choice of GP is restricted to two changes a year. The GP has a gatekeeping function within the system because referrals are required for the access to specialized care. The choice of a hospital is not restricted (Schölkopf 2010: 45, 113, 34, 36).

The pharmaceutical benefit package is defined by the Norwegian Medicines Agency (NMA). If there is a large budget impact, the final decision will be made by the MoH on the basis of a recommendation given by the NMA. In case of a positive decision the approval of the parliament is required. Beyond the pharmaceutical positive list, there is no explicitly defined benefit package in existence (Johnsen 2006: xiv, 36).

Poland

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>societal</i>
<i>remuneration of service providers</i>	<i>societal</i>
<i>access of patients to service providers</i>	<i>state/private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	societal
Service provision	private

In 2008, the Polish healthcare system was mainly financed by social security contributions, which were accountable for 64.5% of total spending (24.0% out-of-pocket payments, 7.6% taxes, 0.6% private health insurances, OECD 2011). These contributions are determined by law and are related to the income tax (Kuszweski und Gericke 2005: 25f).

Service provision in outpatient and pharmaceutical care is mainly supplied by private providers. On contrary, 81.4% of the hospitals are state-owned (18.4% owned privately/societal, see Kozek 2006: 7f; and Kuszweski und Gericke 2005: 14, 56, 90, 3). Because the inpatient sector accounts only for around 31.0% of total health expenditure, service provision in total is nonetheless dominated by private provision (OECD 2011).

The market access of healthcare providers is regulated by the National Health Fund (NHF), which develops healthcare delivery plans and concludes agreements with service providers. The remuneration rate is negotiated between the NHF and the service providers and hospitals respectively (Kuszweski und Gericke 2005: 14f, 88ff).

Patients can choose their GP freely. Due to the gatekeeping function of the GPs in the Polish healthcare system a referral is required to receive specialized and hospital care free of charge (Kozek 2006: 18; Kuszweski und Gericke 2005: 88; Shahriari, Belli und Lewis 2001: 9, 19).

The definition of the benefit package is done by the minister for health, who makes his/her decision on the basis of the recommendation of the Agency of Health Technology Assessment (AHTAPol) (Krol, Matuszewicz und Musialowicz 2009: 202).

Portugal

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>state</i>
<i>remuneration of service providers</i>	<i>state</i>
<i>access of patients to service providers</i>	<i>state/private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	state
Service provision	state

In 2008 the biggest share of funding resources for the Portuguese healthcare system was expended by taxes, which were accountable for 63.9% of total spending (27.2% out-of-pocket payments, 4.9% private health insurance, 1.2% social security contributions, OECD 2011).

Service provision in inpatient and outpatient care is mainly supplied by public providers. About three quarters of all hospital beds (75.3%) are located in state-owned facilities (18.1% are owned by societal actors, 6.6% are owned privately, OECD 2011). Physicians are mainly salaried by the state. In contrary, pharmaceuticals are mostly dispensed by privately-owned pharmacies (Barros, Machado und Simões 2011: 74f, 106f).

Both market access and remuneration of healthcare providers within the inpatient and outpatient sector are regulated by the state. Nearly all physicians are salaried by the state and hospital care is remunerated by a DRG-based system. The few privately working physicians negotiate their remuneration with the NHS (Barros, Machado und Simões 2011: 70, 4ff).

Patients have free choice of GP. The GPs actually shall channel patients' pathways by referring them to further care. In effect, there are possibilities to bypass this gatekeeping; patients obtain services even without referral for free. Correspondingly the access to hospitals is conditioned (Schölkopf 2010: 23, 113, 34, 37).

The benefit package is defined by the ministry which makes its decisions on the basis of recommendations given by INFARMED, the public pharmaceutical agency (Teixeira und Vieira 2008: 33f).

Slovakia

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>societal/state</i>
<i>remuneration of service providers</i>	<i>societal/state</i>
<i>access of patients to service providers</i>	<i>state/private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	societal
Service provision	private

The Slovakian healthcare system was mainly financed by social security contributions which hold a share of 61.3% on total spending in 2008 (6.5% taxes, 25.2% out-of-pocket payments, OECD 2011). The level of the contribution rate is thereby determined by the parliament (Szalay et al. 2011: 71).

Taken together the three sectors, most services are provided by private providers. Indeed, inpatient care is dominated by state-owned facilities which provided 94.9% of all hospital beds in 2004 (compared to 5.1% provided by private and societal actors, see HOPE n.s.-a), but outpatient and pharmaceutical care are mainly supplied by private physicians and pharmacists (Szalay et al. 2011: xviii, 110, 26).

Providers can supply services self-employed or as employee. In the former case they require a license and a permit, whereas an employee only has to apply for a license. Licenses are granted by the particular professional chamber, a permit is issued by regional authorities or the MoH. Providers then have to contract with the insurance funds. In specialized and hospital care, the state defines a minimum number of providers within a particular region and health insurance companies are obligated to contract state-owned hospitals. The remuneration in outpatient primary care is mostly based on capitations fees, whereas specialists are remunerated by fee-for-service payments. The fee schedule is negotiated between service providers and the insurance company, but the ministry sets minimum and maximum prices. In inpatient care remuneration takes place within a case-based system. The level of case payments is also negotiated between service providers and health insurances (Szalay et al. 2011: 39, 79-88).

Patients have free choice among contracted GPs and specialists. They can change the GP every six months. Both GP and specialist have a gatekeeping function because a referral is required to access hospitals (Szalay et al. 2011: 46, 110).

The ministry is in charge of defining the health benefit package. It is thereby advised by different ministerial reimbursement committees which consist of representatives of the MoH, the insurance companies and the “professional public”(Szalay et al. 2011: 41).

Slovenia

Regulation	societal
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>state/societal</i>
<i>remuneration of service providers</i>	<i>societal</i>
<i>access of patients to service providers</i>	<i>state/private</i>
<i>definition of the benefit package</i>	<i>societal</i>
Financing	societal
Service provision	state

In 2009 Slovenia's healthcare system was financed to a share of 70.4% by social security contributions. Taxes accounted for 1.5% of total spending and private expenditure amounted to 27.1% (13.3% private health insurance, 13.8% out-of-pocket payments, OECD 2011). Social security contributions are determined by the parliament. They are shared between employees and employers and levied income-related. The compulsory health insurance is administered by the Health Insurance Institute Slovenia (HIIS), the only health insurance in Slovenia. Opting out is not possible (Albrecht et al. 2009: 49f; AOK Bundesverband n.s.). Service delivery is state dominated. In 2009, 25.8% of total expenditure was spent on inpatient care where public providers had a market share of more than 98.0%. 22.5% of total expenses were spent on outpatient care, mainly delivered by community-owned local health centers and, to a far lesser extent, by private providers. Nearly the same amount falls upon pharmaceuticals. Approximately 30.0% of the pharmacies are privately owned, the remaining ones are part of the public pharmacy network (Albrecht et al. 2009: 107f, 17; HOPE n.s.-b; OECD 2011).

Providers can choose between working self-employed or as employees of the HIIS. Regardless of their status, they have to contract with the HIIS in order to receive remuneration. Patients who consult non-contracted providers have to pay treatment privately. The same procedure applies for private hospitals. The remuneration of physicians is prospectively negotiated between the HIIS and service providers in annual agreements and consists of capitation fees and fee for services. The fees are also binding for private and supplementary insurances. Prices and fees for self-employed physicians, which are paid out-of-pocket by the patients, are determined by the Medical Chamber of Slovenia, but require the approval of the MoH. Hospitals are remunerated through DRGs. The DRGs (point values) are negotiated prospectively between HIIS and providers annually (Albrecht et al. 2009: 59-68, 75).

Access for patients to healthcare is restricted within a personal physician model: physicians can be chosen freely, but cannot be switched for a year. For all further contacts patients need a referral. Once obtained, the choice of specialist or hospital is free (Albrecht et al. 2009: 107-11). The benefit package is generally defined in the Health Care and Health Insurance Act of 1992. The scope (distribution between sectors, providers, benefits etc.) is determined through annual negotiations between HIIS and service providers (Albrecht et al. 2009: 50, 9ff).

Spain

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>state</i>
<i>remuneration of service providers</i>	<i>state</i>
<i>access of patients to service providers</i>	<i>state/private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	state
Service provision	state

The Spanish healthcare system was mainly financed by taxes which hold a share of 67.3% on total spending in 2008 (4.8% social security contributions, 5.8% private health insurance, 21.5% out-of-pocket payments, OECD 2011). The tax rate is determined by the state and the regions (Schölkopf 2010: 29).

Service providers are mainly employed by the state. Two thirds (66.3%) of the hospital beds in inpatient care facilities were state-owned in 2008 (compared to 13.5% owned by societal actors, and 20.2% privately-owned, OECD 2011).

Market access and remuneration of healthcare providers within the Spanish healthcare system is regulated by the state. Service providers have two alternatives to enter the system. Either they are directly employed by the regional health service (predominantly used), or they work independently by legal formulas. In outpatient care physicians are mostly salaried by the state. This salary is determined by the government. Private providers are reimbursed by fee-for-service payments which are negotiated before. Hospitals are financed by global budgets, which are determined in negotiations between the facilities and the regional health services (García-Armesto et al. 2010: 105-20).

Patients can choose their GP freely within a determined area. Normally, to receive specialized care a referral is required. In reality patients bypass this regulation and go without a referral to a hospital. Thus the choice of hospital is conditionally free (Schölkopf 2010: 30, 113, 34, 37).

The benefit package is defined by law (SNS Cohesion and Quality Act). The government's decisions are based on recommendations made by the Consultation Committee of the Interterritorial Council of the National Health Service (CISNS), which consists of the national health minister and regional health ministers (García-Armesto et al. 2010: xix, xxviif, 50ff).

Sweden

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>state</i>
<i>remuneration of service providers</i>	<i>state</i>
<i>access of patients to service providers</i>	<i>state/private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	state
Service provision	state

In 2008 Sweden's healthcare system was financed mainly by taxes, which were accounted for 82.3% of total expenditure (solely 0.2% was funded by private health insurance, whereas out-of-pocket payments were accounted for 16.5%, OECD 2011). Taxes are determined by counties and municipalities (Schölkopf 2010: 46).

In the same year 33.3% of total expenditure was used for outpatient care, 25.3% for inpatient care and 16.0% for medical goods and pharmaceuticals. Both inpatient and outpatient sector are dominated by private service providers. In pharmaceutical care the share of private provision is slightly higher than state provision. All in all healthcare provision within the Swedish healthcare system is mainly done by state actors (Glenngård et al. 2005: 21, 5, 52, 65, 77, 9, 80-9).

Access for providers is generally state regulated. The counties engage physicians who work in the public care centers and contract with private providers. Likewise they organize hospital planning and authorize facilities (Glenngård et al. 2005: 20-2, 79f). Correspondingly, remuneration is determined by the state as well. Primary care centers are remunerated by global budgets, most providers are public employees and get a salary (some counties also pay case payments and/or capitation fees). Private providers contract with the county councils and get a mix of salary, capitation fee and fee-for-services, and can additionally bill their patients directly. As well as the primary care centers hospitals are balanced by global budgets even if some counties also use per-case payments and fee-for-service payments (Glenngård et al. 2005: 52).

In general patients have free choice of physicians, when they want to consult a GP or a specialist. Nevertheless in some counties GPs function as gatekeepers. Likewise the choice among physicians is restricted on the corresponding county – unless the patient has to wait longer than 90 days for an appointment. The choice among hospitals is free (Schölkopf 2010: 48, 113).

The benefit package regarding pharmaceuticals, dental services and appliances is defined by the Pharmaceutical and Dental Benefits Board (LFN), a government body composed of experts and representatives of the ministry and the NHS (Glenngård et al. 2005: xv, 20f, 37).

Switzerland

Regulation	societal
<i>system of financing</i>	<i>societal</i>
<i>access of (potential) providers to healthcare markets</i>	<i>private/state</i>
<i>remuneration of service providers</i>	<i>societal</i>
<i>access of patients to service providers</i>	<i>private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	societal
Service provision	private

In 2008 the Swiss health system was financed up to 41.2% by contributions, followed by out-of-pocket payments, which accounted for 30.5% (18.3% taxes, 9.0% private health insurance, OECD 2011). Sickness funds determine each on their own the level of premiums. The contribution rate of the mandatory insurance has to be granted at federal level by the ministry. Service provision is dominated by private providers. Outpatient care, medical goods, and pharmaceuticals lie almost completely in the hands of private providers. 60.0% of hospitals are state-owned, but the hospital sector has a share of only 29.4% of total expenditure which cannot offset the private dominance (OECD 2011; Rosenbrock und Gerlinger 2006: 311).

Regarding outpatient care, access for providers is not restricted: In the past every licensed physician was allowed to provide services for the public system. Since 2001, the Bundesrat can restrict the number of physicians for a period of 3 years. However, sickness funds have an obligation to contract all licensed physicians. The access for providers of inpatient care is state regulated. Hospital planning falls to the cantons. Physicians working in primary care are remunerated on basis of a fee-for-service-principle. The tariff schemes are negotiated between sickness funds and provider associations at the national level, though sickness funds and provider associations at cantonal level are not bound to this national fee schedule but can establish their own schedule or payment mechanism. The remuneration of hospitals is negotiated directly between sickness funds and hospital associations at cantonal level (European Observatory on Health Care Systems 2000: 12, 24, 67f; Rosenbrock und Gerlinger 2006).

Access for patients to care is more or less unrestricted: In general the choice among GPs and specialists is free. Nonetheless patients can opt for a GP-centered insurance police. In the latter case the access to specialists is restricted. The choice among hospitals is free. The in- or exclusion of benefits in the benefit package is determined by the MoH. Each type of benefit is dealt within an own procedure, but all are structured in the same manner: A commission staffed with representatives of sickness funds, provider associations, patient associations and representatives of the ministry recommends to the ministry the in- or exclusion of a service, and the ministry then finally decides about the reimbursement.¹¹

¹¹ Mostly the Bundesamt für Gesundheit follows the recommendation, thus it is categorized as state/societal.

United Kingdom

Regulation	state
<i>system of financing</i>	<i>state</i>
<i>access of (potential) providers to healthcare markets</i>	<i>state</i>
<i>remuneration of service providers</i>	<i>state</i>
<i>access of patients to service providers</i>	<i>state/private</i>
<i>definition of the benefit package</i>	<i>state</i>
Financing	state
Service provision	state

The healthcare system of the UK is financed up to 82.6% by taxes (private health insurance accounted for 1.2%, out-of-pocket payments for 11.1% of total expenditure, OECD 2011).

It is difficult to get current data about the shares of health expenditure by provider because no OECD Health data are available. Primary, secondary and tertiary care are mainly supplied by state actors, whereas pharmaceutical care is provided by private pharmacies. The service provision in the UK is mainly state because most of the hospital beds are state-owned and healthcare professionals are mainly salaried by the state (NHS). Furthermore the (private) share of pharmaceutical care in total health expenditure is only 18.3%, hence it will not exceed the state share (Boyle 2011: 74, 174, 94, 200, 34, 68, 70).

Market access of service providers is regulated by the state: Physicians have to subscribe with the different Primary Care Trusts (PCTs), which are responsible for securing the primary care supply. Hospitals which are able to offer services and benefits fulfilling NHS standards can apply for incorporation on a hospital catalogue. Listed hospitals are approved to treat NHS patients. The remuneration of service providers is more or less state-regulated. GPs as well as specialists run contracts with the NHS, whereby the contracts themselves are negotiated between the providers associations (General Practitioner Committee and Central Consultants and Specialists Committee of the British Medical Association) and the representatives of employers (NHS employers). The payment of hospitals is organized within the “payment by results” model, a mixture of activity and case mix related DRGs (called HRGs, Healthcare Resource Group), which was introduced in 2003 and has still not been fully implemented (Boyle 2011: 115f, 9ff, 36ff).

The access of patients to providers is restricted within a gatekeeping model: Patients can choose a GP freely, who refers them, if necessary, to specialists. The choice of a hospital is not completely free, but not as strict as in the past when patients were referred to a certain hospital by their GP. Today, patients can choose between four or five hospitals (Schölkopf 2010: 18, 113, 36). The definition of the benefit package falls to the PCTs. However, if NICE decides that a certain benefit has to be financed, the PCTs in England and Wales are bound to this decision (Boyle 2011: 82).

United States

Regulation (aggregated)	private		
<i>Regulatory framework</i>	<i>Private Plan</i>	<i>Public Plan</i>	<i>Uninsured</i>
Regulation	private	state	private
<i>system of financing</i>	<i>private/state</i>	<i>state/private</i>	<i>private</i>
<i>access of (potential) providers to healthcare markets</i>	<i>private/societal</i>	<i>state/private</i>	<i>private</i>
<i>remuneration of service providers</i>	<i>private</i>	<i>state/private</i>	<i>private</i>
<i>access of patients to service providers</i>	<i>private</i>	<i>state/private</i>	<i>private</i>
<i>definition of the benefit package</i>	<i>private/state</i>	<i>state</i>	<i>private</i>
Financing	private		
Service provision	private		

The US healthcare system is financed to 54.0% through private sources (including 33.4% private insurance, 11.8% out-of-pocket and 8.8% other private). Contributions account 39.6% and tax financing 6.4% (OECD 2011).

Healthcare services are mainly delivered by private for-profit providers. The private for-profit index accounts 74.0% including outpatient and dental services, medical products and significant fractions of inpatient care. Public as well as private non-profit provision is limited to the hospital sector. Therefore, the public provision index only accounts 6.0% – the private non-profit provision index 20.0% (Rothgang et al. 2010: 204).

The regulatory framework depends on the scheme of coverage. 53.3% of the population are exclusively privately insured. Public programs, e.g., Medicare, Medicaid, or military care cover 30.6% of the population. 16.1% are uninsured (US Census Bureau 2011: 29). Therefore, the regulatory regimes of each (non-)scheme is weighted for the aggregated measure.

State regulation on private health plans is very limited and mostly indirect by tax exemptions. There is currently neither a mandate to insure, nor an obligation for insurance companies to accept applicants. Access of providers to the healthcare market depends on the contract details of private plans which partly rely on accreditations by self-regulatory non-profit organizations. The remuneration and the access of patients to providers are either unregulated or restricted due to contract details of managed care plans. Some federal states interfere in the calculation of and the content of employer sponsored plans (representing the vast majority of privately insured) while individually purchased private plans are completely unregulated (Rothgang et al. 2010: 214, 8f., 21, 23f, 26f).

Public programs face a vast amount of state regulation. The federal government fixes income-related and community-rated contributions for the biggest Medicare parts A and B, while private insurers play only a role in the smaller parts C and D. In terms of Medicaid, the financial responsibility is shared by the federal government and the states but the vast majority of states extensively collaborate with private managed care plans. In terms of remuneration the public schemes negotiate contracts with service providers and fix the level of DRGs for

hospitals. In Medicare plan C and D this is left to private plans. The same mixture of restrictive state-regulation and enhanced choice by the more recent Medicare plans occurs at the access of patients to providers. The benefit package is clearly defined by the state. Even private insurers must at least offer this level of cost coverage in order to be accredited for Medicaid or Medicare plan C and D (Rothgang et al. 2010: 213, 6f., 20f, 23, 24, 27).

Uninsured patients face a completely unregulated healthcare market with individual financial responsibility, free choice of providers, as well as benefits and their remuneration related to individual service contracts.

Missing OECD countries

Four of the 34 OECD countries – Chile, Greece, Mexico and Turkey – could not be categorized due to missing data and the high fragmentation of their healthcare systems. With the exemption of Turkey, the healthcare systems of these countries are all primarily privately financed through out-of-pocket payments¹², while social insurance contributions account for the major part of funding in Turkey.

For all four countries data about the prominence of each service sector as well as about the definite share of providers is missing. We could establish only that pharmaceutical provision is dominated by private actors and inpatient provision by state actors in Chile, Greece and Turkey.¹³ The outpatient sector is even more difficult to categorize, appearing highly pluralistic in all countries, with boundaries between state or social insurance employees and private actors often blurred.

Categorization in the regulation dimension is equally difficult as two or more systems exist in parallel in these countries, each with different degrees of regulation and distinct regulating actors. *Chile* possesses a public as well as a private healthcare system. The private system, however, is highly regulated by the state, which is why we have categorized regulation in Chile as state dominated. In *Greece*, three different systems co-exist. Emergency pre-hospital, primary and inpatient care is taxed-financed and provided mainly by the state, while all other services are either covered by social health insurance or have to be paid out-of pocket (Economou 2010: 15-7). Each of the three systems has its own regulation and regulating actors. Due to this complexity of regulation and because the exact share of each system is unknown, we were not able to categorize the regulation dimension for Greece. *Mexico* also possesses a tripartite healthcare system, yet with different partition. There exists a state supply net for the uninsured population (approx. 40 million people), various social health insurances for formal workers and employees (approx. 50.0% of the population) which own their own provider network, and a private market where services are paid for through private insurances (covering 4.0% of the population) and out-of-pocket payments and where various private providers are found on the supply side (MedToGo 2007; OECD 2005: 38; PAHO 2007: 482; Rios 2008: 10, 2; see also Whyte 2009). While the state and social security branches of the Mexican healthcare system are highly regulated by both state and societal actors, the private market seems to be hardly regulated at all. The *Turkish* healthcare system also consists of

12 Only Chile has got a mentionable share of private insurances of nearly 20% of total expenses.

13 Inpatient care in Mexico is provided by state, social insurance and private providers and we do not know their exact share. Pharmaceutical provision in Mexico cannot be compared with other countries, because state as well as social insurance providers directly dispense pharmaceuticals. We do not have data of pharmacies in Turkey but information from two country reports let us assume that pharmacies are mainly privately owned. (Çelik und Seiter 2008; OECD 2008)

three parts. The social security system with its three health funds covering formal workers and their relatives constitutes the first pillar. One of those funds employs its own providers. The state “green card” program forms the second pillar and covers certain groups of poor people and informal workers. Third, there is a huge share of approx. over 30.0% of the population that is not insured at all and that has to rely on state provision or the private market (OECD 2008: 28ff). In contrast to the two former countries, the organization of these three branches seems to be highly regulated by state actors, with a growing importance of social insurance actors in the last years.

The healthcare systems of all the missing countries are characterized by fragmentation, which is characteristic for healthcare systems of developing countries. Another common feature is the dominance of out-of pocket payments. This accounts for the fragmented structure of healthcare systems in Chile and Mexico. The high degree of fragmentation in the Turkish and the Greek healthcare system is surprising, however, and can only be explained by specific characteristics of these countries.

GLOSSARY

Capitation fees	Capitation fees are used as payment mechanism for physicians. Physicians are paid a fixed rate per patient independently of diagnosis, delivered services or duration of treatment.
Collective and selective contracting	Contracts between purchaser and provider in terms of remuneration, service provision and/or accreditation can be negotiated either collectively or selectively. Collective agreements are negotiated regularly by the respective (professional) associations in representation for all their members, subsequently the agreement is binding for all. Selective contracting implies the opportunity for purchaser and provider to conclude independently of their associations individual contracts.
Diagnosis related groups (DRGs)	A payment mechanism mainly used in inpatient care, whereby the level of remuneration depends on the diagnosis of the patient. Similar diagnoses are clustered in groups, and different remuneration levels are assigned, considering different factors such as duration, severity, or necessary services.
Fee-for-service payments	Physicians receive a payment for each service they deliver. Usually, those fees are laid down by a standardized fee schedule, independently of diagnosis, number of patients or other factors.
Gatekeeping	Generally, a gatekeeping model restricts the patients' access to care, though there are several specific models with different degrees of restriction. The basic principle is that every patient relies to a physician who serves as first contact point. All further contacts are mediated or controlled by this physician. Subsequently, in healthcare systems with a strict gatekeeping model, there is no opportunity at all to get access to certain types of care without the permission of the gatekeeping physician. In systems with softer gatekeeping models the access is not strictly controlled but rather regulated by either incentives or sanctions (e.g. cheaper contributions, none or reduced cost reimbursement).
General practitioner (GP) <i>(also: primary care physician (PCP) or family physician)</i>	Even though the specific connotation and demarcation vary between countries, all terms refer to physicians with a rather broad than specialized medical knowledge. Typically they offer general medical services, ensure basic medical supply and serve as first and continuous contact for nearly all medical issues, why they are often also assigned the role of a gatekeeper.
Global budgets	Global budgets determine the amount of money that a specific sector of the healthcare system is allowed to spend within a given timeframe.
Out-of-pocket payments	All healthcare costs which have to be borne by the patient.
Inpatient Care <i>(also: stationary care)</i>	Inpatient care in contrast to outpatient care presupposes an accommodation of the patient for intensive and/or long-lasting monitoring and treatment (see also "Outpatient Care").
Outpatient Care <i>(also: ambulatory care)</i>	Outpatient care comprises all types of services delivered in ambulatory practices, ambulatories, or in outpatient care departments of hospitals and clinics, and which do not require an intense or long-term (over-night) monitoring of the patient (see also "Inpatient Care").

Performance related payments <i>(also: pay for performance)</i>	There exist different forms of performance related payments. They all have in common, that (part of) the provider's income is paid according to his or her performance with regard to specific aspects. For example, payment might depend on patient satisfaction, increases of efficiency or the achievement of strategic goals.
Primary Care	The stage model of primary, secondary and tertiary care differentiates types of care according to the usual chronological sequence of contact and the degree of complexity of care. Primary care thereby refers to basic medical supply in the ambulatory setting, mainly delivered by GPs or sometimes by nursing staff. Serving as first contact point, primary care comprehends and deals with routine care, common or minor health problems, health prevention, as well as it coordinates the patients' further pathway in case of more complex diseases by referring them to secondary or tertiary care (see also "Secondary Care" and "Tertiary Care").
Principle of benefits-in-kind	Patients receive benefits free of charge and the accounts are balanced between purchasers and providers (instead of cost reimbursement or payment-in-advance).
Risk-pooling	Risk-pooling mechanisms such as financial equalization and redistribution aim at compensating or cushioning unequal distributed risks between different health funds, which result from differences in the insurant base (e.g. morbidity, age).
Secondary Care	In contrast to primary care, secondary care (as well as "Tertiary Care", see below) deals with more complex cases which require a greater specialization and more sophisticated equipment. Secondary care thereby includes the provision of outpatient specialized care as well as emergency care and complex, but more or less common cases of illness whose treatment requires inpatient-care. It is delivered by specialists in private practice, in outpatient departments of hospitals as well as in hospitals, clinics or other inpatient care facilities.
Semashko system	The Semashko healthcare system is named after Nikolai Semashko who had a central position in the development of the USSR healthcare system in the 1930s. Variants were common among the Soviet bloc countries. The model is characterized by a pervasive role of the state in regulation, financing, and service provision and therefore shares features with Western NHS-type systems. Further characteristics include a focus on infectious disease prevention, strict planning, as well as centralization and concentration on curative care in hospitals and polyclinics.
Tertiary Care	Tertiary care refers to extraordinary, high-complex cases, which are dealt with by specialists of a narrow clinical area in special units with highly specialized equipment (e.g. breast cancer units). The distinction between secondary and tertiary care is not always as strict insofar as in effect both types of care are often offered by the same facility (e. g. university hospitals).

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ABBREVIATIONS

AHTAPol	Agency for Health Technology Assessment in Poland
AIFA	Agenzia Italiana del Farmaco (Italian Medicines Agency)
CEE	Central and Eastern European
CISNS	Consejo Interterritorial del Servicio Nacional de Salud de España (Interterritorial Council of the National Health Service, Spain)
CVZ	College voor zorgverzekeringen (Health Care Insurance Board, The Netherlands)
DBC	Diagnostic Treatment Combinations (Dutch type of DRGs)
DHB	District Health Boards, New Zealand
DRG	Diagnosis Related Groups
EHIF	Estonian Health Insurance Fund
EU	European Union
GP	General Practitioner
HIIS	Health Insurance Institute of Slovenia
HIRA	Health Insurance Review Agency, Republic of South Korea
HiT	Health Systems in Transition (Health System Reviews)
HRG	Healthcare Resource Group (British type of DRGs)
HSE	Health Service Executive, Ireland
INAMI/RIZIV	Institut National d'Assurance Maladie Invalidité/Rijksinstituut voor Ziekte- en Invaliditeitsverzekering (Belgium)
LFN	Läkemedelsförmånsnämnden (Swedish Pharmaceutical Benefits Board)
MoH	Ministry of Health
MoHWS	Ministry of Health and Social Welfare (The Netherlands)
NHI	National Health Insurance
NHF	National Health Fund
NHIFA	National Health Insurance Fund Administration, Hungary
NHS	National Health Service
NICE	National Institute for Health and Clinical Excellence
NMA	Norwegian Medicines Agency
OECD	Organisation for Economic Co-operation and Development
OOP	Out of pocket
PAHO	Pan American Health Organization
PCT	Primary Care Trust
PHARMAC	Pharmaceutical Management Agency, New Zealand

PHI	Private Health Insurance
RW	Rothgang/Wendt
SCHIP/CHIP	(State) Children's Health Insurance Program
SHI	Social Health Insurance
SSSI	State Social Security Institute, Iceland
SUKL	Státní ústav pro kontrolu léčiv (State Institute for Drug Control, Czech Republic)
UK	United Kingdom
UNCAM	Union Nationale des Caisses d'Assurance Maladie, France
US	United States
WHO	World Health Organization

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