Comparative analysis of health care reforms in Germany and the UK in order to deal with increased health expenditures arising from population aging between 2000 and 2010



# **BACHELOR THESIS**

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#### Abstract

The thesis deals with countries facing rising health expenditures from aging populations and the health care reforms they implement in order to deal with this problem. It answers the main research question 'What health care reforms did the United Kingdom and Germany come up with during the period 2000 to 2010 in order to deal with aging populations?'

It is interesting to see whether the two most different systems react similarly or differently to the same problem. Moreover, it is analyzed whether the implemented policy changes are in line with predictions from theory on welfare states and health care systems. The concepts and indicators of these theories create the basis of the analysis of the thesis.

The comparative analysis with longitudinal design makes use of data derived from statistical data bases as well as scholarly literature and legislative documents.

The paper is structured along the research question and sub-questions and divided into seven chapters. First of all, the theoretical framework is set up, outlining concepts and indicators from theory, followed by the research methodology. Afterwards, there is a chapter on Germany describing the health care system, the implemented reforms and closes with the analysis of these reforms. Thereafter, a chapter follows which is structured similarly but dealing with the UK. In the sixth chapter a comparison of the analyzed reforms in both countries is made. Lastly, the conclusion of the research is drawn.

The thesis aims at contributing to the existing body of knowledge, by analyzing reforms between 2000 and 2010. Until now the majority of research is focusing on reforms before 2000. Furthermore, the topic of population aging is becoming ever more present.

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## **List of Abbreviations**

AABG – Arzneimittelausgaben-Begrenzungsgesetz ABAG – Gesetz zur Ablösung des Arznei- und Heilmittelbudgets Abs. - Absent BSSichG – Beitragssicherungsgesetz Decr. – Decrease GKV – Gesetzliche Krankenversicherung; equivalent to SHI (English) GKV-FinG – GKV-FInanzierungsgesetz GKV -GMG – GKV Modernisierungsgesetz GKV-WSG – GKV-Wettbewerbsstärkungsgesetz **GP** – General Practitioners HRG – Health Care Resource Groups Incr. – Increase IT – Information Technology LINKs – Local Involvement Networks NHS – National Health Service No ch. – No change PBC – Practice Based Commissioning PCT – Primary Care Trust Pres. – Present SGB – Sozial Gesetz Buch SHI – Social Health Insurance; equivalent to GKV (German) UK – United Kingdom

## **1** Introduction

Currently many countries within Europe, as well as other parts of the world, are facing aging populations, mainly caused by a decrease in birthrates and an increased life expectancy, and thus low mortality rates, at the same time. Therefore, a larger part of the overall population is depicted by the elderly (Encyclopedia of Population). This is amongst others one crucial factor influencing and driving policy change. Aging populations are part of the demographic change concept, which generally speaking is about changes in the composition of the overall population in a country. However, due to time and resource limitations the focus of this thesis will only be on the aging population. Policy changes implemented due to aging population affect pension policies, as well as heath care policies. Due to the fact that old people are in need of medical services relatively more often than young people, an aging population is one factor causing rises in health care costs. This thesis will therefore deal with policy changes implemented in health care systems as a possible reaction on the rising expenditures. Existing scholarly literature names various forms of health care reforms aiming at controlling costs. It is the aim of this descriptive research to analyze whether different health care systems deal with aging populations similarly or differently in their health care reforms and whether the changes are as theory suggests. Health care reforms in the time-span between 2000 and 2010 will be analyzed. As units of observation two extreme cases have been chosen: Germany and the United Kingdom (UK). Both experience the problem of aging population and thus rising health expenditures. However, they belong into different groups of welfare states and do apply different health care systems. Whereas Germany uses the so called National Insurance System, the UK applies the National Health System (Hassenteufel, P., Palier, B., 2007, p. 576), outlined in Chapters 4 and 5. Therefore, a most different design approach is used.

The overall research question of the thesis is as follows:

'What health care reforms did the United Kingdom and Germany come up with during the period 2000 to 2010 in order to deal with aging populations?'

Some sub-questions are used, to support the process of answering the main research question:

- 1. 'What kind of health care reforms did Germany implement between 2000 and 2010 in order to deal with aging population?', which is treated in Chapter 4.2.
- 2. 'What kind of health care reforms did the UK implement between 2000 and 2010 in order to deal with aging population?' This sub-question is addressed in Chapter 5.2.
- 3. 'What are the similarities and differences in the health care reforms implemented between 2000 and 2010 in Germany and the UK?' dealt with in Chapter 6.
- 4. 'Do policy changes implemented fit with what empirical theories predict on how health care systems can be changed?' Chapters 4.3 and 5.3 answer this sub-question.

The overall research question is descriptive, since it analyzes health care reforms implemented in two different health care systems. The aim is to find out whether these policy changes fit the empirical theories on how health care systems can be changed and whether there are similarities or differences in the content of reforms of the two countries. Due to the fact that only little research exists in the time-span from 2000 to 2010, the thesis contributes to extending the current body of research, as well as the existing body of knowledge, by analyzing health care reforms within this period. Tables 10 and 11 provide an overview of the reforms. Moreover, it is relevant in social terms due to the increasing number of countries facing aging populations, as well as the actuality of the problem itself.

This becomes visible by campaigns as the European Year of Active Aging and Solidarity between Generations 2012 and Figure 3 in the Appendix shows that many EU countries face aging populations.

#### 2 Theory and Concepts

This part outlines the concepts used in the thesis, derived from theory on how to change health care systems. Moreover, it shows the relationship between welfare state types and health care systems. Due to the fact that population aging increases health expenditures, reform indicators have to be determined in order to see how the two different health care systems deal with it. The first concept is demographic change, which is needed in order to define the problem of the research. As already shortly discussed in the introduction part, the thesis focuses on the aging part of the concept, which means that due to low mortality and birth rates, the old depict a larger part of the overall population of industrialized countries (Encyclopedia of Population). Since the analysis is concerned with changes in health care systems, health care reform has to be conceptualized here, which is a change in current health care policies. This change is defined as "a product of the interaction between the institutional and procedural routine characteristic of any given health system, and the pressures on that system from its environment" (Freeman, Moran, 2000, p.45).

#### 2.1 Different welfare states and health care systems

Another important concept is "welfare states" because health care systems are a major part of them and hence directly linked to their structure. They provide services to their citizens in order to guarantee a basic accommodation. There are three different types of welfare states, classified by Esping-Andersen (1990). The first type is the liberal welfare state, which provides support in form of benefits for the poor, as well as citizens with low income. One of the core aims is to maintain dualism. However, equality is guaranteed between state and market welfare. The state only intervenes at a late stage in order to "uphold one's own livelihood" (Esping-Andersen, G., Myles, J., p. 7). The UK belongs to this type of welfare state. It is put into a sub-category of this classification, which is called the Beveridge system. Citizens are divided into social strata, which encourage dualism within the system. Moreover, market mechanisms are a dominant part of the welfare state. The second type of welfare state is the so called corporatist welfare state. Its main characteristics are to retain differences between its citizens, which means that there exist different social classes and worker status and to let the state only intervene at a very late stage. Furthermore, some additional services are granted next to basic accommodations. In this system pensions and unemployment benefits are provided by the state. Germany is put into this category of welfare state. The last type of welfare state is the social democratic one, which is mainly applied in Scandinavian countries. It guarantees wage compensations paid by the state. Key characteristics are almost no class differences, day care centers for children, and a dominant state. They are also called universal welfare states (Esping-Andersen, 1990, pp.26-28). The table below summarizes the key characteristics of each type of welfare state.

	Liberal welfare state	Corporatist welfare state	Social democratic wel- fare state
Key characteristics	Maintain dualism (but equality between market and state wel- fare recipients)	Status preservation of workers	Equality among citi- zens (universal inclu- sion)
Provision	Dominance of market mechanisms	Social insurance sys- tem (e.g. pensions, unemployment bene- fits and sick pay)	Wage compensation paid by the state; service-intensive wel- fare state (e.g. special care for elderly and children, benefits for training etc.)
Main actors	State intervention only if market fails (state welfare minimized to poorest)	Mostly workers and employers; Limited role of state; intervention only at late stage	Strong/dominant role of the state

Table 1 The three	different type	s of welfare states
Table I file three	unicicii type.	s of wentile states

Health care is an important part of the welfare system in all types of welfare states. Hassenteufel and Palier (2007) identify two different systems, namely the Health Insurance System, implemented in Germany, and the National Health System, implemented in the UK. Here, a brief overview of the main elements of each system will be provided, whereas the two health care systems are outlined more in detail in Chapters 4 and 5.

The National Health System is state organized and mainly financed by tax contributions, which explains low private expenditures on health services. Moreover, in the UK health care is universal and thus every citizen is eligible to health care services. Furthermore, access to health care is almost free, which guarantees equality. There are also disadvantages, as for instance long waiting periods until patients can get an appointment at specialists (Hassenteufel, P., Palier, B., 2007, p. 576). On the contrary, Health Insurance Systems provide free choice for patients when choosing a physician, which is accompanied by high health care expenditures. The system is only partly state organized due to the competences of Germany's federal entities (Länder). It is financed by social contributions, the so called payroll taxes, which are shared among employees and their employers. Hospital services are either private or public (Hassenteufel, P., Palier, B., 2007, p. 576).

Some key characteristics of the type of welfare state are represented in the type of health care system. In the UK, where the liberal welfare regime is present, the health care system also contains elements as state dominance and a strong market mechanism. The German health care system, which is oriented at the corporatist welfare state model, contains differences between recipients because first of all health care funds can be chosen freely and secondly the payroll taxes are income oriented. Moreover, the health care system is decentralized and thus has a low degree of state intervention. Lastly, it is important to mention that it covers sick pay, which is an additional service next to the basic accommodation. Figure 1 below models the relationship between the type of welfare state and the type of health care system.

Comparative analysis of health care reforms in Germany and the UK in order to deal with increased health expenditures arising from population aging between 2000 and 2010

#### Figure 1 Elements of welfare states and relation to different health care systems



Due to the fact that the two health care systems of Germany and the UK are different in the services they cover as well as the way they are organized and the eligibility and equality of access to health care services it can be expected that they react differently on the increased costs from population aging. However, they should have in common that they either decrease services in order to save budget or a restructuring is necessary in order to obtain the additional budget needed. Below some indicators from theory on how to reform health care systems will be determined, which are the basis for the analysis.

#### 2.2 Reforming health care

Hassenteufel and Palier (2007) identify three dimensions of health care reforms, namely the financial, the cost containment and the governance dimension (Hassenteufel, P., Palier, B., 2007, p. 581). The financial dimension focuses on changes of finance mechanisms implemented in health care reforms. Indicators of the financial dimension are therefore the size of social contributions and financing by taxes. Besides that, fee-for-service payments is a further indicator of this dimension (Freeman, R., Moran, M., 2000, pp. 35-42). The second dimension, cost containment, comprises variables which aim at measuring changes to reduce health expenditures. Indicators for this are the level of reimbursement rates and copayments for patients, global volume envelopes, capped budgets for health expenditures, and the control and evaluation of medical practices (Hassenteufel, P., Palier, B., 2007, p. 581). The article 'Reforming health care in Europe' written by Freeman and Moran in 2000, adds some indicators to this dimension identified by Hassenteufel and Palier (2007), namely the number of hospital beds, number of physicians, reference pricing and size of physician's budgets (Freeman, R., Moran, M., 2000, pp. 35-42). The third dimension is the governance dimension, which deals with competition, managerialsim, the creation of state agenicies, reorganization of medical care and institutional reforms of sickness funds (Hassenteufel, P., Palier, B., 2007, p. 581). The authors state that the first two dimensions are typical for Health Insurance Systems, whereas the third one is rather typical in National Health Systems (Hassenteufel, P., Palier, B., 2007, p. 580).

The table below provides an ordered summary of the indicators of the three dimensions. It is partly adapted from the article by Hassenteufel and Palier (2007) and partly by Freeman and Moran (2000).

Dimension	Indicator
Financial	Size of social contributions
	Financing by taxes
	Fee-for-service payments
Cost containment	Level of reimbursement rates and copayments
	for patients
	Global volume envelopes
	Budgets for health expenditures
	Control and evaluation of medical practices
	Number of hospital beds
	Number of physicians
	Reference pricing
	Size of physician's budgets
Governance	Competition
	Managerialsim
	Creation of state agencies
	Reorganization of medical care
	Institutional reforms of sickness funds

Table 2 Reform indicators from theory

Since the financial and cost containment dimensions have been conceptualized above, it is necessary to explain the precise meaning of the indicators. The social contributions are defined as the money employers and employees pay in order to guarantee that employees receive reimbursements for their health expenditures. Financing by taxes is the money flowing into the health care system derived from taxes. Fee-for-service payments are the payments of a certain amount of money for a certain treatment provided. Reimbursement rate is the money patients receive back from their insurances after having paid for a certain medical treatment or service. Co-payments are that part of the treatment patients have to pay themselves, so it is not reimbursed. Global volume envelopes are defined as a point system in which a treatment is given a certain amount of points after which physicians are remunerated each trimester. The point values are oriented at the volume of treatments provided (Hassenteufel, Palier, 2007, p. 583). Budgets for health expenditures are set by governments and comprise the money a state spends on health care. Control and evaluation of medical

practices, the number of hospital beds and the number of physicians are self-explaining. Reference pricing means that medications are evaluated in their effectiveness by officials and then assigned to a reimbursement category, which is oriented at the cheapest option. Size of physician budgets means the amount of money a doctor is allowed to spend on treatments and prescriptions. It is expected that the increase in health expenditures due to population aging encourage policy change in the form of health care reforms, especially along the financial and cost containment dimension (Giaimo, S., Manow, P., 1999, pp. 967).

In this chapter the concepts of health care reforms, demographic change (aging population) and welfare state, setting the broader frame, necessary to answer the research question have been defined. Moreover, the indicators and dimensions given by Hassenteufel and Palier (2007) and Freeman and Moran (2000) are needed to analyze the different reforms implemented in either of the two countries, and to afterwards answer the research question on the basis of the analysis. The following chapter outlines the research methodology.

#### **3 Research Methodology**

#### 3.1 Research objective

As already shortly mentioned in the introduction, the aim of the thesis is to find out whether the health care reforms adopted in Germany and UK are as theory suggests and whether the different health care systems deal similarly or differently with the problem of aging populations. Due to the fact that old people are in need of medical services relatively more often than young people, the aging populations cause an increase in health expenditures per capita. Hence, reactions of national politicians are necessary in order to guarantee that costs do not run out of control.

#### 3.2 Research design

The research design is a comparative analysis with a longitudinal element due to the fact that a timespan of ten years is analyzed. The study can be classified as dynamic comparison with spatial as well as temporal variation. The units of observation are the two countries. The aim is to find out whether the logics of the health care system are represented in the reform or whether there are similarities in the content of the health care reforms, although the two health care systems are different. According to Punch (2006) the research question of the thesis can be classified as "What question", which is specific and "directly answerable" because it contains all necessary information on data needed to answer it (Punch, 2006, p. 22).

#### 3.3 Case selection

First of all, countries with aging populations, which are clustered mostly in industrialized countries such as countries in Western Europe, were looked at (Encyclopedia of Population, 2003). The following table clearly shows that Germany and the UK do have increasing percentages of people aged 65 plus and thus aging populations. The UK is close to the EU average, which was 15.6 in 2000 and increased to 17.4 in 2010, whereas Germany is having the largest aging population in the EU (Statistisches Bundesamt, 2012) and is constantly above the average. Moreover, it is important to mention that in Germany the increase is much faster than in the UK and the EU average. In 2000 there was only a difference of 0.4 percent between Germany and UK, whereas in 2005 it was already 2.6 and in 2010 4.2 percent. This is the case because Germany does have a shrinking overall population since 2003, whereas in the UK the overall population is still growing.

Year	Germany		UK	
	Overall population	Percentage of	Overall population	Percentage of
		the population		the population
		aged 65 plus		aged 65 plus
2000	82 259 540	16.2	58 999 781	15.8
2001	82 440 309	16.6	59 216 138	15.8
2002	82 536 680	17.1	59 435 480	15.9
2003	82 531 671	17.5	59 697 037	15.9
2004	82 500 849	18.0	60 038 695	16.0
2005	82 437 995	18.6	60 409 918	16.0
2006	82 314 906	19.3	60 781 346	16.0
2007	82 217 837	19.8	61 191 951	16.0
2008	82 002 356	20.1	61 595 091	16.1
2009	81 802 257	20.4	62 026 962	16.3
2010	81 751 602	20.7	62 498 612	16.5

#### Table 3 Population data for Germany and UK

Source percentage aged 65 plus:

http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=de&pcode=tps00028&plugin=1 Source overall population:

http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=de&pcode=tps00001&plugin=1

Another reason to look at these two countries is that they present different welfare state regimes (Esping-Andersen, 1990). Moreover, Germany is the most typical example of a National Insurance System (Hassenteufel, P., Palier, B., 2007). In order to make a comparison another country applying a different system was chosen. Since it is most interesting to compare extreme cases, the UK is chosen as the second unit of observation being the most typical example of a National Health System (Hassenteufel, P., Palier, B., 2007). The characteristics of the two health care systems are described in Chapters 4 and 5 of this thesis in detail and Table 12 summarizes the most important differences.

#### 3.4 Link between theory and indicators

In the theoretical framework three dimensions for reforming health care were mentioned. Moreover, theory says that "welfare states in all advanced industrialized societies are facing enormous pressures [...]", whereas aging populations is one of those and thus they have to make budget savings (Giaimo, S., Manow, P., 1999, pp. 967). Therefore, the thesis focuses on those indicators falling under the financial and cost-containment dimensions. The third dimension, namely governance, which is concerned with organizational changes, rather than controlling costs, will be left out because it would be too much for the time frame of a Bachelor Thesis. The following part shows how the indicators from theory will be measured in the analysis.

#### **3.5 Operationalization**

In order to undertake the analysis, the concepts from theory have to be measurable. Therefore, this part elaborates on the different measurements used. The social contributions are measured by increase, decrease or no change in the amount/size of contributions to be paid. Financing by taxes is measured by increase, decrease or no change of services being tax financed. The next indicator, which is fee-for-service payments is measured by the presence or absence of this kind of payments. Moreover, reimbursement rates will be measured by increase, decrease or no change of services are measured by presence or absence of this remuneration procedure. Budgets for health expenditures are measured by an increase,

decrease (cuts) or no change in the money the state spends on health care. The control and evaluation of medical practices is measured by presence or absence. The number of hospital beds and the number of physicians is measured by increase, decrease or no change. Reference pricing again is measured by presence or absence. Lastly, the size of physician budgets is measured by increase, decrease or no change. The following table gives a summarized overview of the conceptualizations and measurement levels of the indicators used for the analysis.

Indicator	Conceptualization	Measurement
Size of social contributions	Money employers and employ-	Increase, decrease, no change
	ees pay for health care of em-	
	ployee	
Financing by taxes	Money flowing into health care	Increase, decrease, no change
	system derived from taxes	
Fee-for-service payments	Amount of money paid for cer-	Presence or absence in the
	tain amount of treatment	system
Level of reimbursement rates	Reimbursement rate: Money	Increase, decrease or no
and copayments for patients	patients receive back from in-	change
	surances	
	Copayments: Contributions	
	patients have to pay them-	
	selves	
Global volume envelopes	Point system assigned to	Presence or absence
	treatments for physician remu-	
	neration oriented at volume of	
	treatments	
Budgets for health expendi-	Money a state spends on	Increase, decrease (cuts) or no
tures	health care	change
Control and evaluation of med-		Presence or absence
ical practices		
Number of hospital beds		Increase, decrease or no
		change
Number of physicians		Increase, decrease or no
		change
Reference pricing	Evaluation of effectiveness of	Presence or absence
	medications by officials and	
	assignment of reimbursement	
	category oriented at the	
	cheapest	
Size of physician budgets	Amount of money doctors are	Increase, decrease or no
	allowed to spend on treat-	change
	ments and prescriptions	

Table 4 Overview on indicators, their conceptualization and measurement

## 3.6 Data collection and analysis

For the empirical analysis the thesis uses qualitative as well as quantitative data, derived from scholarly literature, described in the theory part and statistical data bases, such as Eurostat, being a reliable source for data on populations, number of physicians and hospital beds. The reforms of each country will be analyzed on the basis of the indicators presented in the theory part above. Tables 10 and 11 list the reforms studied in this thesis. The information on the content of the health care reforms are derived from national archives, legislative documents and health insurances, since these are reliable data sources. Chapter 6 outlines similarities and differences, as well as whether the policies suit to what theory on welfare states and health care systems suggests. The analysis will show if all of the indicators are always present or whether there are only some used as well as if one of the health care systems puts more evidence on certain indicators compared to the other. Moreover, it is interesting to see whether there are other dimensions or indicators not mentioned in the existing body of knowledge yet.

#### 3.7 Limitations of the study

Lastly, it is important to mention that the research design is limited to countries experiencing aging populations. Furthermore, the results of the analysis do only apply for Germany and the UK, since only their two specific cases will be looked at. Thus, it can neither be generalized to other countries nor to other health care systems. There are also limitations concerning the data used due to the fact that they are derived from existing statistical data bases. The sources used are reliable data sets (Eurostat – Principle 12), however since one did not collect the data on one's own, there remains the threat that the statistics do not accurately report what they claim to do. Moreover, the validity is limited because the measurements might not be as precise and suiting to the variables and concepts as expected (Babbie, 2010).

#### **4** Germany

#### 4.1 The health care system in Germany

As already shortly mentioned in the theory part, Germany applies the National Insurance System (Hassenteufel, P., Palier, B., 2007, p. 576). This part outlines the key features of the German system more in detail.

In Germany health insurance is mandatory since 1883 (Hassenteufel, P., Palier, B., 2007, p. 575). The system was suggested by Otto von Bismarck in order to provide workers with basic health care services. The system is financed by social contributions, called payroll taxes. These are shared equally among employers and employees. One reason for that financing mechanism is that the health care system covers sick pay in case of long sick leave periods. Hence, it makes sense that contributions are related to income. Sick leave coverage means that for a period of six weeks the sick employee receives full remuneration. After six weeks of illness the health insurances pay 70% of the actual wage of the insurant. There is a limit of 78 weeks within three years for the same illness (§48 SGB V (1)). The system also covers chronic diseases which are very cost intensive, whereas, dental care and eyewear, including glasses and contact lenses, have to be paid privately or by extra insurances. The health care costs are reimbursed afterwards because the system is demand oriented, causing high expenditures. Physicians are paid on a fee-for-service base. The system includes sickness funds, which enjoy a great degree of autonomy and are divided into public and private funds, between which insurants can choose freely. The dual system existence of public and private health insurances, covering basic treatments, is unique in Europe because usually private insurances cover additional services only. However, also in the German system the latter ones provide some extra services compared to public ones. The health funds are also incorporated into the decision making process, which is a process of negotiation between the health insurance funds, unions of physicians and politicians. So it can be said that "insurance funds and unions are public-law bodies" (Giaimo, S., Manow, P., 1999, p. 976). Due to the large number of actors and institutions holding some powers, the German system can be said to be decentralized. The state is responsible for guaranteeing health coverage for its citizens by ensuring a collective decision making process. An important concept of the German system is the principle of solidarity, which ensures equal treatment to all insurants. Besides that, there is the benefit kind principle, allowing basic treatments without advance payments by patients. Furthermore, patients are granted free choice of doctors, which enables them to visit also specialists directly. Additionally, they have the right for at least a second opinion, causing high costs.

All in all it can be said that choice and freedom are the key characteristics of the German National Insurance System (Hassenteufel, P., Palier, B., 2007, p. 577).

#### 4.2 Health care reforms in Germany between 2000 and 2010

This part outlines the several health care reforms that have been implemented in Germany between 2000 and 2010 and thus answers the sub-question 'What kind of health care reforms did Germany implement between 2000 and 2010 in order to deal with aging population?' Table 10 in the Appendix lists all the German reforms regarded in this thesis.

In the 1990s German health care reforms were mainly focusing on cost containments by increasing copayments for treatments, pharmaceuticals, hospital stays and glasses as well as dental prosthesis and at the same time cutting services provided. Also between 2000 and 2010 several health care reforms have been implemented in order to adapt to societal needs at the one hand and at the same time aiming at controlling rising costs (Busse, R., Riesberg, A., 2004, pp. 186-194).

In 2000 the so called 'Gesetzliche Krankenversicherungs (GKV)-Gesundheitsreform' was implemented [social health insurance (SHI) health care reform]. The most important changes in this reform are that budgets of physicians' remuneration are cut as well as those for hospitals and pharmaceuticals. In case the budgets are exceeded, regress is implemented. Moreover, the integrated care concept becomes part of standard care. The aim is that through integrated care the system becomes more economic because medical treatment takes place in close collaboration of general practitioners and specialists (Busse, R., Riesberg, A., 2004, pp. 194-195; AOK – GKV-Gesundheitsreform 2000).

In 2001 a law called `Gesetz zur Ablösung des Arznei- und Heilmittelbudgets' introduces a new method of allocating the budget for pharmaceuticals, which is based on objectives agreed between Associations of SHI physicians and health insurances. They determine annual volumes based on recommendations by the state for the following year. Single doctor practices are examined in case they exceeded the agreed budget, with the exception of doctors treating many chronically ill patients who are in need of regular prescriptions, which in the end rises the budget of that particular practice. In case a physician exceeds the budget by more than 25% he/she has to reimburse the additional costs to health insurances. The Associations of SHI physicians inform on the benefit and impact of pharmaceuticals and show price competitive alternatives to physicians in order to support them staying within the budget. A special incentive is given through bonus payments for those physicians staying within the budget (ABAG, 2001).

In 2002 a law on the distribution of pharmaceuticals was published, in which the distribution is limited for insurants of SHIs. Moreover, physicians are obliged to prescribe the lowest cost option, which fits the medical situation. In case patients are released from hospital, doctors have to mention at least one cheaper method of therapy and medication if possible (§115c AABG, 2002). Further-

more, a law on securing the contribution payments was passed, in which death grants are shortened and further restrictions are made on physician as well as hospital budgets (BSSichG, 2002).

In 2003 a very large health care reform was implemented, which brought many changes, aiming at cost reductions in the health care system in order to keep payroll fringe costs low in a long-term perspective (GMG, 2003). A 10€ fee for visiting doctors was introduced, which is called 'Praxisgebühr'. It is paid by patients once each quarter when using medical services and is not reimbursed by health insurances. It has to be paid whenever a doctor is consulted, either by telephone or in person, when prescriptions are needed as well as in case of emergency. The doctor which is first consulted, usually a general practitioner, is able to send the patient to specialists then, where the patient does not have to pay again. Children under 18 are exempted of the fee. Furthermore, changes concerning copayments are part of the reform. Insured persons have to pay 10% of the price of medicine and bandages from 2004 onwards. Nevertheless, the contributions are limited to 5€ and have a ceiling of 10€. Moreover, the copayment is not allowed to exceed the actual price of the product. Besides that 10% of the costs for acoustic aids have to be carried by patients, again capped with 10€ maximum. Glasses and other visual aids are not supported anymore for patients aged over 18. In case of domestic care patients pay 10% of the costs and additionally 10€ per day until the 29th day. In case of hospital stays patients are obliged to pay 10€ per day for the first 28 days. A total ceiling of two percent of the gross income, and one percent for chronically ill, is introduced. Families receive annual allowances of 3.648€ per child. Furthermore, death as well as birth grants are abolished. The contributions to sick pay increase by 0.5% of gross income for insurants. Hospitals are allowed to offer ambulatory services after 2004 (GMG, 2003). Health insurances are allowed to offer bonus payments for those insurants who participate in preventive medical examinations and other health related initiatives. The insurances are allowed to develop their own programs and bonus systems. Moreover, additional services may be offered by public health insurances as well now. Another change is the financing of maternity pay, sick pay for children and similar services now being tax financed. In order to reduce health expenditures and avoid double treatments but at the same time guarantee quality a new institution has been established, which is called 'Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen' [Institute for quality and cost effectiveness for health care]. It tests and evaluates medicine and treatment procedures on their effectiveness and publishes the results (Busse, R., Riesberg, A., 2004, pp. 198-202; GMG, 2003).

Another big health care reform was released in 2007, called GKV-Wettbewerbsstärkungsgesetz [SHI Competition Enhancement Act] (GKV-WSG, 2006). As the name indicates, the most important aspect is the increased competition between health insurances. First of all, after 2007 it is mandatory to be insured. Moreover, a nation-wide contribution rate is set from 2009 onwards when the health funds, financed by payroll taxes, co-financing and taxes, will be implemented. They distribute the tax allow-ances, which are also increased with this reform, to health insurances. This abolishes the regional management of health insurances and introduces a centralized governmentally determined funding (GKV-WSG, 2006; How to Germany – Special Report: German Government Health Insurance Reform 2007). In order to ensure the principle of solidarity, a risk adjustment scheme for the standardized expenditures between health insurances is present, in which insurances receive the same amount per insurant out of the implemented health fund, related to age, gender and specific diseases per person insured.( AOK – Gesetzliche Krankenversicherung). Contributions are raised by 0.5 percentage points. Insurances are allowed to ask for additional contributions, which are not allowed to exceed one per cent of gross income. In this case insurants are allowed to change the health insurance. Max-

imum 5% of the insurances' costs can be financed by additional contributions, whereas the rest has to be financed out of the funds (GKV-WSG, 2006; Wirtschaftlexikon24.net – Eckpunkte für eine Gesundheitsreform 2006). Also private insurances are obliged to offer a basic contribution, covering the services of public health insurances, from 2009 onwards. Furthermore, all health insurances are allowed to have trade allowances with pharmaceutical suppliers. In case very expensive medicine is being prescribed, a second physician has to be consulted. Moreover, a better infrastructure of service providers shall be established in order to guarantee appropriate finalization of treatments after patients are released from hospitals (Wirtschaftlexikon24.net – Eckpunkte für eine Gesundheitsreform 2006). This reform also implements cost-benefit analysis for pharmaceuticals. Additionally, the remuneration of physicians is changed from treatments being related to a point system now being related to fixed prices (Wirtschaftlexikon24.net – Eckpunkte für eine Gesundheitsreform 2006).

The next large health care reform is the 2010 reform (GKV-FinG, 2010), which brings an increase in contribution rates as well as additional contributions to be carried by insurants. The contribution rate of public health insurances is increased from 14.9% to 15.5%, of which an increase from 7.9% to 8.2% is made to the employee paid part, and the employer's contribution is raised from 7.0% to 7.3%. In case further cost increases will be implemented in the future, which will be done through increased additional contributions, they have to be carried by employees only. The former ceiling of one percent of the gross income for additional contribution rates is abolished. However, in case it exceeds two percent of the gross income, a tax financed social balancing [Sozialausgleich] will take place, which has a maximum of the average additional contribution rate (GKV-FinG, 2010). Higher expenses have to be carried by the insurant. Flexibility concerning contribution rates is given to health insurances in order to further increase competition. All this shall amount to savings in health expenditures of €3.5 million in 2011 and €4 million in 2012 (experto.de).

The answer to the first sub-question is that some health care reforms and additionally some laws have been passed which all aim at reducing health expenditures in Germany between 2000 and 2010. The table below summarizes these. In the following subsection of this chapter it will be analyzed whether these findings fit to what theory predicts on welfare states and Health Insurance Systems.

Indicator	2000	2002	2003	2007	2010
Size of social					Increase
contributions					from
					14.9% to
					15.5%;
					employee
					increase
					from 7.9%
					to 8.2%;
					employers
					increase
					from 7.0%
					to 7.3%
Financing by tax-			Maternity al-	Newly intro-	Social bal-
es			lowance, etc.	duced Health	ancing

Table 5 Presence of indicators from theory in German health care reforms

			now tax fi-	Eundo partly tax	[]
			now tax II- nanced	Funds partly tax financed	
			nanced	Inanced	
Fee-for-service					
payments			100		
Reimbursement			10€ practice		
rates/copayments			fee; glasses		
			have to paid by		
			patient; 10€		
			daily fee in hos-		
			pital; min. 5€		
			max. 10€ co-		
			payment to		
			pharmaceuticals		
Global volume				Change from	
envelopes				treatment being	
				related to	
				points being	
				related to fixed	
				prices	
Budget for health		Cutting	Abolishing ma-		Save €3.5
expenditures		death	ternity and		million till
(state)		grants	death grants		2011 and
		-	_		€4 million
					till 2012
Control and eval-	Regress if				
uation of practic-	budget ex-				
es	ceeded				
Number of hospi-	Cut in hospital	Restriction			
tal beds	budgets	in hospital			
		budgets			
Number of physi-					
cians					
Reference pricing				Cost-benefit	
interest entre priering				analysis of	
				pharmaceuticals	
Size of physicians	Physician's	Restrictions		pharmaccuticals	
budget	remunerations	on physi-			
Juger	are cut	cians re-			
		gress in			
		case of			
		extension			

## 4.3 Analysis of the changes in the German system

This part analyzes whether the contents of the health care reforms implemented are related to the type of welfare state and the characteristics of the health care system described by theory. Thus, it is concerned with answering the sub-question 'Do policy changes implemented fit with what empirical theories predict on how health care systems can be changed?' It is structured along the three dimensions.

Concerning the finance dimension the 2003 reform introduced tax financing for some extra services. Moreover, the health funds, introduced by the reform in 2007, as well as the social balancing mechanism from 2010 are financed out of tax contributions. This changes the system away from the ideal model of Health Insurance Systems towards NHS characteristics. Additionally, the 2010 reform introduced a change in this dimension by increasing social contribution rates, especially on the employee paid part. This further shifts Germany away from the initial model identified by Hassenteufel and Palier (2007), in which the share between employee and employer was equal.

With regard to the cost containment dimension especially the 2003 reform introduced several changes by increasing copayments and decreasing the number of remunerated services, which fits to the claim made by Hassenteufel and Palier (2007) that it is typical for Health Insurance Systems to focus on changes within this dimension. However, it is a shift away from the characteristics of corporatist welfare regimes (Esping-Andersen, 1990) since the number of additional services and coverage is decreased. This change happened also by budget cuts for health expenditures in the 2002 reform, where death grants have been cut and in 2003 when they were fully abolished next to maternity allowances and other additional services. Moreover, it is part of the German cost containment strategy to shorten hospital budgets (in 2000 and 2002) as well as hospital stays, which becomes visible by the fact that since 2004 hospitals are allowed to offer ambulatory care and in 2007 a better network between providers shall guarantee a proper final medical provision after patients were released from hospitals. This in the end makes it possible to release patients earlier and provide them with ambulatory treatments, which is neither part of theory on Health Insurance Systems nor of that on welfare states but fits into the cost containment dimension of Hassenteufel and Palier (2007). It can be concluded here that this measure is implemented due to aging populations because old people do not recover as quickly as young people do after surgeries and are in need of intensive care, provided in hospitals, more often. So this measure avoids investments into new beds by shortening time spent in hospitals for recovery. The table below shows the number of hospital beds for Germany and the UK.

Year	Germany	UK
2000	911.6	409.8
2001	901.0	403.7
2002	887.3	398.1
2003	874.4	395.4
2004	857.8	386.5
2005	846.7	373.4
2006	829.7	355.7
2007	823.9	340.7
2008	821.4	335.5
2009	823.9	329.1
2010	824.8	295.5

Table 6 Number of hospital beds per 100.000 inhabitants

Source: http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=de&pcode=tps00046&plugin=1

It shows that the number of hospital beds per 100.000 inhabitants is decreasing in Germany, although there is a shrinking population since 2003. There is a small turning point after 2008 when the number of beds slightly increases again. So the conclusion drawn above that the shortening of hospital stays is because the beds are needed for new patients and aims at containing costs makes sense. The evaluation for the UK will be undertaken in the following chapter. The table below shows the number of practitioners in Germany and the UK between 2000 and 2010.

Year	Germany	UK
2000	325.9	195.8
2001	330.7	200.8
2002	333.6	208.4
2003	336.7	217.7
2004	339.0	231.3
2005	341.1	239.4
2006	345.3	244.9
2007	350.3	248.7
2008	355.8	257.6
2009	363.6	266.8
2010	373.1	271.2

#### Table 7 Number of practitioners per 100.000 inhabitants

Source: http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=de&pcode=tps00044&plugin=1

It can be seen, that in Germany the number of practitioners per 100.000 inhabitants increased steadily within the ten years under analysis. This shows that there is a shift from hospital treatments (reduction in number of beds) to ambulatory care (increase in number of practitioners) in order to save costs, which fits to the theory of Hassenteufel and Palier (2007). Furthermore, this specific change incorporates a reorganization of medical care, which builds the bridge to the governance dimension. In this dimension the 2000 reform implemented regress in case budgets were overspent, which the 2002 reform extended to physician budgets. These audits and control mechanisms are against basic values of the Health Insurance System because it means intervention by the state, due to the fact that state agencies are in charge of the evaluation and control services. Moreover, this introduces competition among providers of health services because they want to receive a good evaluation and ranking. Furthermore, incentives are present for those staying inside their budgets. This is a shift on the governmental dimension towards NHS policies in which market mechanisms and competition are present as mentioned in the description of the NHS reforms in Chapter 5.2. Furthermore, the 2007 reform implemented cost-benefit analysis for pharmaceuticals, which further increases competition, affecting producers of pharmaceuticals and pharmacies here.

All in all, it can be concluded that most of the reforms implemented are indeed along the cost containment dimension, as Hassenteufel and Palier (2007) suggest. However, it turned out that Germany implemented several changes along the third dimension, which is contradictory to the theory of Hassenteufel and Palier (2007). Moreover, several changes are shifting the Health Insurance System away from the ideal model and key characteristics as well as from the ideal type of a corporatist welfare state. This chapter answered the fourth sub-question for the German reforms. The following chapter will deal with the UK's health care system and its reforms.

## **5 United Kingdom**

#### 5.1 The health care system in the UK

The health care system of the UK is state organized and centralized. The circulation of patients in the system is monitored by Strategic Health Authorities. The system is financed through tax contributions

and provides universal coverage, meaning that every citizen enjoys a basic health insurance. The access is almost free because co-payments by patients are kept at a very low level. There are also private health insurances, providing extra services. Patients do only have direct access to doctors operating in local practices (ambulatory care), which are practitioners of general medicine (GPs), determined as primary care. These local doctors are paid on capitation basis (Hassenteufel, P., Palier, B., 2007, p. 579). In case patients have to visit specialists (secondary care) they are assigned to waiting lists. Chronic diseases are covered, whereas dental care and eyewear are not included in the general health insurance. The system is financed in advance, which guarantees relatively good cost controls because limited budgets are set on health expenditures by the state. In the UK the state owns the hospital sector (Giaimo, S., Manow, P., 1999, p. 970).

#### 5.2 Health care reforms in the UK between 2000 and 2010

This part outlines the health care reforms between 2000 and 2010 in the UK and thus answers the sub-question 'What kind of health care reforms did the UK implement between 2000 and 2010 in order to deal with aging population?' Table 11 in the Appendix lists all NHS reforms regarded in this thesis.

In the 1990s the UK's health care reforms mainly focused on creating an internal market within the health care sector by implementing trusts, which make physicians compete for patients.

In the NHS a major reform plan was set up and implemented in 2000, comprising aims and changes for the next ten years. It is called "The NHS Plan" and basically aims at creating a more patient focused health care system. Long waiting lists for patients are one of the main problems within the NHS. It was identified that the reason for this is a too small budget spent on health care, which in turn means that too few services were provided in the past, due to a lack in staff. Therefore, a huge number of investments are planned. The aim is that in 2004 patients will face a maximum of 48 hours waiting time before they can visit a GP (The NHS Plan, 2000, p. 102) and in 2005 the outpatient waiting time shall not exceed three months, whereas that for inpatients shall be below six months (The NHS Plan, 2000, p. 105). Moreover, it turned out that structural changes are necessary, as for instance national standards are missing and also the strong role of the state and the centralization have been identified as problematic to a certain degree. In order to solve these problems the NHS Plan introduces an increase of half the budget from 2000 within the next five years (till 2005) (The NHS Plan, 2000, p. 11). Several changes will be funded from this budget, as for instance there shall be 7000 extra beds in hospital and intermediate care until 2004. This is the first increase of such a large size since 30 years (The NHS Plan, 2000, p. 43). Furthermore, 100 new hospitals shall be set up by 2010 (The NHS Plan, 2000, p. 44).GPs practices shall be modernized for instance by new technical equipment such as scanners increasing preventive care measures. Besides that, better Information Technology (IT) systems will be installed in hospitals and doctor's offices and till 2004 electronic prescriptions shall become possible. Moreover, 500 new one-stop primary care centers shall be opened in order to provide services to patients more quickly when needed (The NHS Plan, 2000, p. 45).

These changes are accompanied by a huge increase in staff to deliver health services. Firstly, 1000 extra places will be created for medicine students. Concurrently, 2000 more GPs, as well as 7.500 consultants will be employed. The scope of tasks carried out by nurses shall be increased in order to disburden doctors, till 2003 280 million pounds shall be spend on this. Therefore, 20.000 nurses and 6.500 therapists will be employed (The NHS Plan, 2000, p. 50). Furthermore, large investments for training of staff in the NHS is planned till 2004 (The NHS Plan, 2000, p. 51). Several measures are im-

plemented to increase working conditions. For instance, daycare centers will enable staff with children to work. Additionally, better remunerations and more training spots will be created (The NHS Plan, 2000, pp. 51-55).

The centralization of the system will be loosened in order to bring it closer to the patient. Local health services will have more powers and responsibilities in the future by introducing national standards. The local authorities are monitored by a Commission for Health Improvement. Those local NHS agencies delivering good and effective services for patients will be awarded with incentives from an annual 500 million pound performance fund (The NHS Plan, 2000, p. 64). A similar reward system will be established for practitioners that shorten waiting periods and at the same time improve quality of services provided. Furthermore, incentives will be set up for physicians in the primary care sector who collaborate closely, in order to avoid unnecessary hospitalization and double treatments. Those incentives are divided into three categories, namely: Money for equipment of the practice office, secondly better staff facilities and lastly cash incentives (The NHS Plan, 2000, p. 65). A further aim of the NHS Plan is to make cost effective drugs accessible everywhere in order to guarantee the equality in the system. With special regard to the aging population the combination of social and NHS services is planned in order to create more efficiency and less overlap, so that redundant double treatments will be avoided. Moreover, this cooperation shall ensure that old people can leave hospitals earlier and receive care at their homes. The independent life of the elderly shall also be supported by the introduction of personal care plans between them and their attendants. The NHS plan allocates 900 million pounds for safeguarding and prevailing independent lives of the elderly within four years (up to 2004) (The NHS Plan, 2000, p. 71). Furthermore, the chronically ill and the elderly are provided with a permanent direct contact to their physicians. Preventive care and health education are also key to reforming the NHS. A permanent hotline will be created which advices on health problems, how to behave and whether it is necessary to visit a doctor. Besides that internet pages and TV channels will inform patients on health issues (The NHS Plan, 2000, p. 88). In order to save money and make the system more effective, intermediate care is implemented assisting patients to recover at home after surgeries and in hospital stays, which in turn will reduce the duration of hospital stays (The NHS Plan, 2000, p. 20, p. 71). The point system used for reimbursement of physicians is abolished in order to create a better link between what doctors and the funds do. Thus, increased funding and more rewards will become possible. The funding of health care through tax contributions shall remain the same because it is regarded as efficient.

The 2002 NHS Reform and Health Care Professions Act (National Health Service Reform and Health Care Professions Act 2002, 2002) introduces new rules to the Primary Care Trusts, which control 80% of the NHS budget and also undertake the surveillance of GPs in order to guarantee efficiency within the system. Moreover, the Act creates increased competition amongst service providers by introducing a payment for result system, aiming at raising quality of treatments. This means that hospitals receive remuneration for the services they deliver by procedure. There is a nation-wide fixed price for every procedure set by the Healthcare Resource Group (HRG). It is based on reference cost which is "the average of all hospital costs for that procedure" (Audit Commission for local authorities and NHS in England and Wales, 2004, p.2). This procedure increases quality and cost efficiency of hospital services. The system will be completely implemented and operational in 2008 (The NHS Improvement Plan, 2004). Moreover, the reform Act states that Independent Sector Treatment Centers should provide patients with surgery without long waiting times and at lower cost, so that competition with hospitals and GPs increases. Thus, a whole market structure is emerging within the NHS

system. Besides the competition, patient choice remains the focus by introducing a pilot project allowing patients to visit competitive providers in case they did not get an appointment within six months time. On top of that a ceiling of four hours waiting time in emergency departments, implemented after 2005, is introduced.

The 2004 (The NHS Improvement Plan, 2004) reform basically aims at increasing patient centered health care further. It summarizes the milestones already achieved since 2000. As Figure 2 in the Appendix shows a major achievement was the reduction in waiting times. Moreover, it sets the outlook until 2008, when even more prevention measures shall be undertaken. Furthermore, guality and safety are major issues. The prevention measures shall reduce the number of death due to cancer in people under 75 by 20% until 2010 (The NHS Improvement Plan, 2004, p.42). It states that after 2005 patients can choose between four to five health care providers and in 2008 nation-wide from any provider (The NHS Improvement Plan, 2004, p. 9). Furthermore, the IT based services will be increased steadily by creating 'HealthSpace' where patients as well as doctors can see the sickness history and treatments. Thus, it will become easier in the future to find right treatments and reach a diagnosis faster. After 2005 patients will be able to make appointments via internet. Besides that electronic prescriptions will become available, so that especially chronically ill, who are in need of the same prescription regularly can get them in convenient and fast access. The aim is to have 50% eprescriptions till 2005 (The NHS Improvement Plan, 2004, p. 57). Competition will further be increased by including independent sector providers, amounting to 15% of the providers in 2008, into the system (The NHS Improvement Plan, 2004, p.10). The payment of results from 2002 will be completely established in 2008.

In 2005 the Institute of Innovation and Improvement is established, replacing the Modernization Agency, implemented in the 2000 NHS Plan (The NHS Plan, 2000). It is integrated into the NHS and has the task to support and advice the NHS by looking at other health care systems and learning from them. They work in close collaboration with the Department of Health and other important actors in the NHS. Basically, it assists the NHS in reaching the goals set in the various health care reforms. Furthermore, its goal is to assist the process of innovation which is why it works in close collaboration with research institutes (The NHS Institute for Innovation and Improvement). Besides that, the Treatment Center Program is introduced, which increases the choice for patients who are referred to hospital by their GP. It extends the model of patient choice introduced in the 2004 NHS Improvement Plan. Now patients enjoy the choice between four to five Treatment Centers offering surgeries and operations. The aim of this program is to further increase patient choice and shorten waiting lists (National Archives – Treatment Centers).

In 2006 the White Paper "Our health, our care, our say" has been published which aims at strengthening the relationship between health and social care. Preventive care and increased education on health for the public are key strategies. Again in this policy paper the basic goals are tackling health inequalities, increasing patient choice and shortening waiting lists. Furthermore, the focus is on facilitating access to therapies, preventive services and medicine for society and improving the services for chronically ill. These changes will become patient tailored by giving them a say through consultation and representation in the NHS (Our Health, our care, our say: a new direction for community services, 2006). Practice Based Commissioning (PBC) is introduced (Our Health, our care, our say: a new direction for community services, 2006). This policy enables practices to allocate money to services provided. They receive a certain budget from the PCT which they are not allowed to exceed. In case they do, they have to correct it within three years. If this cannot be reached the practice loses its right for PBC for three years. This policy aims at making the system more efficient in terms of costs and services by shifting commissioning away from PCTs. However, since they are still in charge of the whole fund, a certain amount stays with them in order to balance overspending. Money which was not spent at the end of the year is allocated to patients in form of treatments and other services. Lastly, competition and preventive care play a major role in this paper (UNISON, Practice Based Commissioning Fact Sheet, 2005). Moreover, since 2006 the number of Strategic Health Authorities is reduced to 9 (from initially 28) and there will be 151 PCTs.

The 2007 Mental Health Act (Mental Health Act 2007 No 8, 2007) reforms the Mental Health Act from 1983, introduces changes to the Mental Capacity Act from 2005, and the Domestic Violence, Crime and Victims Act from 2004. Since these legislations focus on ethical and social aspects as well as human rights, it does not contribute to the analysis of this thesis. However, it introduces major changes to the NHS, which is why it has at least to be mentioned in this list of reforms. Moreover, in 2007 the Local Government and Public Involvement in Health Act was adopted (Local Government and Public Involvement in Health Act 2007, 2007). It introduces Local Involvement Networks (LINks) in which communities of people lobby their interests to health and social care. In order to have a stronger voice they can also cooperate with other LINKs. This process is accompanied by Local Authorities and PCTs evaluating joint needs and publishing those in reports. After 2007 it becomes mandatory for health institutions to involve society more actively in the decision making process through either representatives or direct consultations. Afterwards, the responses have to be analyzed, evaluated and a report has to be published (Local Government and Public Involvement in Health Act 2007, 2007).

In 2009 the legally binding NHS Constitution was adopted, which has to be updated every ten years. It lays down the principles and values, patients and staffs rights and duties. There are seven principles outlined (The NHS Constitution, 2009, pp. 3-4): (1) Services provided in the NHS have to be equal for all patients, respecting their human rights, (2) The free and equal NHS services are not related to income, status or any other indicator which could create prestigious treatment to certain patients, (3) The services provided are carried out by experts under the criterion of excellence, (4) The NHS services are related to patient's needs, (5) The NHS shall comprise and inter-institutional exchange and collaboration, (6) The health care system has to be organized and work efficiently in order to effectively serve the needs of those who pay for it, namely citizens as taxpayers, (7) The system is accountable to society and thus has to be transparent and understandable for patients.

Moreover, the rights and duties of patients are outlined in the Constitution. The most important ones are the free, equal and open access to health services, the right to consult practitioners from other EU countries, if necessary, to be treated as soon as possible within the waiting lists, the right to open information on the system and changes to it as well as to influence decisions and changes in the system. Furthermore, there are the rights to high quality treatment, the best and most suitable medication available, preventive treatments as vaccinations and screening programs and the right to be treated with respect. Service providers are obliged to treat information on the patient himself as well as treatments and sickness stories confidential. Additionally, patients can prioritize and refuse treatments (The NHS Constitution, 2009, pp. 5-8). On the other hand there are also duties for patients in order to make the system work. They have to register at a GP, give as many information as needed on their health status to providers, treat them with respect and give feedback in order to be active part of the system and thus help improving it (The NHS Constitution, 2009, p. 9). At the same time staff is obliged to undertake the necessary measures in order to fulfill and guarantee the rights

patients have. In return they get the right to good working conditions, appropriate remuneration, and necessary trainings to remain informed to latest standards and procedures (The NHS Constitution, 2009, pp. 10-11). Lastly, the Constitution lists the NHS values, mentioned in all the various rights and duties before, which are (1) Respect and dignity, (2) Commitment and quality of care, (3) Compassion, (4) Improving lives, (5) Working together for patients , (6) Everyone counts (The NHS Constitution, p. 12).

This chapter answered the second sub-question and the table below summarizes the findings.

Size of social contributions Remains Remains Remains Remains Remains Remains Remains Remains Remains Because because because efficient efficient efficient because efficient because efficient efficient efficient efficient because efficient efficient because efficient efficient because efficient efficient because efficient efficient efficient because efficient efficient because efficient efficient because efficient efficient because efficient efficie	Indicator	2000	2002	2004	2005	2006	2007	2009
contributionsendendendendendendendFinancing by taxesRemains becauseRemains becauseRemains 								
Financing by taxes   Remains because efficient   Remains because   Remains because								
taxesbecause efficientbecause their the their the the<		Remains	Remains	Remains	Remains	Remains	Remains	Remains
Fee-for-service payments   Image: service payments </td <td></td> <td>because</td> <td>because</td> <td>because</td> <td>because</td> <td>because</td> <td>because</td> <td>because</td>		because	because	because	because	because	because	because
paymentsImage: constraint of the second		efficient	efficient	efficient	efficient	efficient	efficient	efficient
Level of reim- bursement rates and co- payments for patients Global volume envelopes Number of hospital beds Number of physicians Number of physicians 2000 GPs and 7500 consultants	Fee-for-service							
bursement rates and co- payments for patientsPayments by results and in hospitals pay- ment by treatment / procedurePayments by results and in hospitals pay- ment by treatment / procedurePayments by results and in hospitals pay- ment by treatment / procedurePayments by results and in hospitals pay- ment by treatment / procedurePayment by results and in hospital buget from 2000 till 2005)Payment by results and in hospital buget from 2000 till 2005Payment by results and in hospital buget from 2000 till 2004Payment by results and in hospital bugetPayment by results and in<	payments							
rates and co- payments for patientsImage: second seco	Level of reim-							
payments for patientsImage: second s	bursement							
patientsImage: constraint of the second	rates and co-							
Global volume envelopesPayments by results and in hospitals pay- ment by treatment / procedurePayments by results and in hospitals pay- ment by treatment / procedureImage: Comparison of the second secon								
envelopes results and in hospitals payment by treatment / procedure luncil 2010 (already increase of half budget from 2000 till 2005) litures litures of half budget from 2000 till 2005) litures of half budget from 2000 till 2005) litures of half budget from 2000 till 2005) litures litures litures litures litures litures of half budget from 2000 till 2005) litures litters	_ ·							
Number of hospitals par- ment by treatment / procedureIntroduction of Practice Based Commissioning (not allowed to exceed budget)Introduction of Practice Based Commissioning (not allowed to exceed budgetIntroduction of Practice Based Commissioning (not allowed to exceed budgetIntroduction of Practice Based Commissioning (not allowed to exceed budgetIntroduction of Practice Based Commissioning (not allowed to excee								
Budgets for health expend- ituresIncreases until 2010 (already increase of half budget from 2000 till 2005)Increase reation of Practice Based Commissioning (not allowed to exceed budget)Introduction of Practice Practice Based Commissioning (not allowed to exceed budget)Introduction of Practice <td>envelopes</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	envelopes							
Budgets for health expend- ituresIncreases until 2010 								
Increases health expend- ituresIncreases until 2010 (already increase of half budget from 2000 till 2005)Increase of half budget from 2000 till 2005)Introduction of Practice Based Commissioning (not allowed to exceed budget)Introduction of evaluation of Practice BasedIntroduction of evaluation of not allowed to exceed budget)Introduction of evaluation of practice BasedIntroduction of evaluation of practice Based commissioning (not allowed to exceed budget)Introduction of evaluation of practice BasedIntroduction of evaluation of practice Based commissioning (not allowed to exceed budget)Introduction of evaluation of evaluation of practice BasedIntroduction of evaluation of evaluation of practice Based commissioning (not allowed to exceed budget)Introduction of evaluationIntroduction of evaluation of evaluation of practice Based commissioning (not allowed to exceed budget)Introduction of evaluationIntroduction of evaluation evaluation of evaluation of eva								
Budgets for health expend- itures   Increases until 2010 (already increase of half budget from 2000 till 2005)   Introduction of     Control and evaluation of medical prac- tices   Present (mainly un- dertaken by PCTs)   Introduction of Practice Based Commissioning (not allowed to exceed budget)   Introduction of     Number of hospital beds   Increase of 7000 beds until 2004   Increase of physicians   Increase of 2000 GPs and 7500 consultants   Increase of								
health expend- itures   (already increase of half budget from 2000 till 2005)			procedure					
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Table 8 Presence of indicators from theory in UK health care reforms

	20.000 nurses plus 6.500 thera- pists)				
Reference pric- ing		HRG sets ref- erence cost for hospital remu- neration (not for medicine)			
Size of physi- cian budgets	Introduction of perfor- mance funds				

## 5.3 Analysis of the changes in the UK system

This part analyzes whether the contents of the health care reforms implemented are related to the type of welfare state and the characteristics of the health care system described by theory. Thus, it is concerned with answering the sub-question 'Do policy changes implemented fit with what empirical theories predict on how health care systems can be changed?' It is structured along the three dimensions.

Concerning the first dimension no changes were introduced in the UK, which suits the prediction of theory. However, several changes along the cost containment dimension were implemented. The 2002 reform introduced a change along this dimension with the payment by results in practices and by treatment in hospitals. This means a change away from initial NHS characteristics identified by theory, where doctors were remunerated on a capitation basis. Furthermore, budgets for health expenditures were increased heavily by the 2000 NHS Plan by scheduling an increase of half the budget from 2000 until 2005. This is against cost containment theory, where budgets would rather be cut and hence suits the fact that NHS do only partly implement changes concerning cost containment and rather focus on the governance dimension. Table 6 shows that there is an overall decrease in the number of hospital beds per 100.000 inhabitants in the UK between 2000 and 2010. The outcome is not as expected because the NHS Plan (2000) set out 7000 new hospital beds until 2004. So, these 7000 new beds have not been enough, since the overall number of hospital beds per 100.000 inhabitants is still decreasing. This fits into the cost containment dimension and is in line with the theory by Hassenteufel and Palier (2007) on how to change health care policies. The number of physicians, or better staff in total, was increased enormously by the NHS Plan (2000), which can be seen in Table 7. Both, the investment in beds as well as staff show large spending into health care and thus at first side seem to be against cost containment theory. However, the overall decrease in the number of beds and the increase in practitioners show the shift from stationary to ambulatory care, which is in line with cost containment theory from Hassenteufel and Palier (2007). The theory on welfare states does not deal with these indicators. Lastly, 2002 HRGs were allowed to set reference cost for hospital remuneration, which shows a further development along this dimension.

Concerning the governance dimension, grants for those practitioners performing well have been implemented. This suits theory because it encourages competition between providers and introduces changes in the third dimension, which is typical for NHS according to Hassenteufel and Palier (2007). The control and evaluation of medical practices is mainly undertaken by the PCTs, and contributes to the dominant role of the state, predicted in theory on the NHS (Hassenteufel, P. Palier, B., 2007).

Furthermore, this increases competition because providers eager for good evaluations and getting grants. This mechanism became even more dominant in 2002 when PBC was introduced. This shifts away the commissioning from PCTs, which now only allocate the money to the practices, who are in charge of relating the money to services. Thus, practices receive more responsibility, which is against theory predicting the NHS has a dominant role of the state and thus encourages centralization. However it is a change within the governance dimension which Hassenteufel and Palier (2007) regard as typical for NHS.

As a concluding remark, it can be summarized that the NHS invested in its services in order to reform and restructure its health care system by increasing competition and implementing market mechanisms, which means changes along the governance dimension. However, it also undertook some cost containment policies, as for instance increasing ambulatory care and shortening hospital stays and treatments which are measures typical for Health Insurance Systems. The answer to the fourth subquestion therefore is that the UK mostly stays in line with theory on the liberal welfare state as well as the NHS system by focusing on the third dimension.

## 6 Comparison

In the chapters before, the health care reforms between 2000 and 2010 in Germany and the UK have been outlined, summarized in tables and analyzed. Based on the analysis this part will compare reforms of the two different health care systems. Since Tables 5 and 8 show the content of the reforms, the following table will show the level of measurement for both systems.

Indicator	Germany				UK							
	2000	2002	2003	2007	2010	2000	2002	2004	2005	2006	2007	2009
Size of social contributions	No ch.	No ch.	<mark>No</mark> ch.	<mark>No</mark> ch.	<mark>Incr.</mark>		ete syste deal with					eforms
Financing by taxes	<mark>No ch.</mark>	No ch.	Incr.	Incr.	Incr.	No cha as effic	i <mark>nge</mark> in ta cient	x financi	ng mech	anism, b	ecause re	egarded
Fee-for- service payments	Pres.	Pres.	<mark>Pres</mark> .	<mark>Pres.</mark>	Pres.	<mark>Abs.</mark>	<mark>Abs.</mark>	<mark>Abs.</mark>	<mark>Abs.</mark>	<mark>Abs.</mark>	<mark>Abs.</mark>	<mark>Abs.</mark>
Level of reimburseme nt rates and copayments for patients	No ch.	No ch.	Incr.	No ch.	No ch.	No ch.	No ch.	No ch.	No ch.	No ch.	No ch.	No ch.
Global volume envelopes	<mark>Abs.</mark>	<mark>Abs.</mark>	<mark>Abs.</mark>	Pres.	<mark>Abs.</mark>	<mark>Abs.</mark>	Pres.	<mark>Abs.</mark>	<mark>Abs.</mark>	<mark>Abs.</mark>	<mark>Abs.</mark>	<mark>Abs.</mark>
Budgets for health expenditures	No ch.	Cost cuts	<mark>Cost</mark> cuts	<mark>No</mark> ch.	Cost cuts	<mark>Incr.</mark>	No ch.	<mark>No</mark> ch.	<mark>No</mark> ch.	<mark>No</mark> ch.	<mark>No</mark> ch.	No ch.
Control and evaluation of medical practices	Pres.	<mark>No</mark> ch.	<mark>No</mark> ch.	<mark>No</mark> ch.	<mark>No</mark> ch.	Pres.	Pres. (PBC)	No ch.	<mark>No</mark> ch.	<mark>No</mark> ch.	<mark>No</mark> ch.	<mark>No</mark> ch.
Number of hospital beds	Decr.	Decr.	No ch.	No ch.	No ch.	Incr.	<mark>No</mark> ch.	No ch.	<mark>No</mark> ch.	No ch.	No ch.	No ch.
Number of physicians	No ch.	No ch.	No ch.	No ch.	No ch.	Incr.	No ch.	No ch.	No ch.	No ch.	No ch.	No ch.
Reference pricing	Abs.	<mark>Abs.</mark>	<mark>Abs.</mark>	Pres.	Abs.	<mark>Abs.</mark>	<mark>Abs.</mark>	<mark>Abs.</mark>	Abs.	Abs.	Abs.	<mark>Abs.</mark>
Size of physician budget	Decr.	Decr.	<mark>No</mark> ch.	<mark>No</mark> ch.	No ch.	Incr.	No ch.	<mark>No</mark> ch.	No ch.	No ch.	No ch.	No ch.

Table 9 Measurement of indicators from theory in Germany and the UK

Incr. = Increase (green); Cost cuts is synonymously used for Decrease here; Decr. = Decrease (red); No ch. = No change (yellow); Pres. = Present (turquoise); Abs. = Absent (purple) Note: The colors facilitate the overview on the presence of the measurements

The table shows that both countries implemented several health care reforms between 2000 and 2010. First of all, it is important to recall that both countries have aging populations and thus a similar challenge to deal with in their health care reforms. Also the NHS Plan (2000) states that health care systems throughout the world are confronted with the same problems and pressures as the NHS (The NHS Plan, 2000, p. 39). It is now necessary to look at similarities and differences in the policies adopted more in detail, in order to answer the third sub-question: 'What are the similarities and differences in the health care reforms implemented between 2000 and 2010 in Germany and the UK?'

## 6.1 Similarities

Both health care systems came up with reforms comprising rewards for practices, which perform well and stay in their budgets, which on the one hand is a change along the cost containment dimen-

sion and on the other hand of the governance one because it increases competition between providers. This measure controls increasing health expenditures arising from aging populations. However, the German system is adopting a central element of the NHS here, namely competition, whereas the NHS is decentralizing its structure by giving authority to local actors (practices). So both systems reorganize the structure of medical care.

Furthermore, both systems shift from hospital treatments to ambulatory care in order to save costs, depicted in Tables 6 and 7. Moreover, both invest in preventive care measures in order to avoid unnecessary visits at doctors and people becoming sick or injured. This again reduces costs spend on health care but is a change along the governance dimension because new institutions and services are created. Furthermore, the dominant role of the state, identified as key characteristic of the NHS by scholarly literature (Hassenteufel, P., Palier, B., 2007) is loosened by the NHS Plan (2000) giving more authority to smaller units, as practices being allowed to allocate money to services provided under PBC. In Germany the opposite took place by centralizing the system for instance through the health fund. So all in all, this is a similar trend within the governance dimension because both countries seem to converge here on a level where some competences are centralized, whereas others are decentralized. Lastly, there was a shift in this dimension when the NHS implemented patient choice in 2004. Patients will be able to choose nation-wide from any provider, which is a central element of Health Insurance Systems. Hence, the NHS is approaching towards the German system in this matter.

Further convergence of the systems can be seen in the finance dimension by Germany introducing several tax financed mechanisms, although this is a key characteristic of the NHS system.

#### **6.2 Differences**

The first outstanding difference is that the UK set aims and a strategy for ten years (The NHS Plan, 2000). The following reforms contributed to the fulfillment of this plan by enlarging the aims and setting time frames for their implementation. This is also the reason why the tables show most entries and changes in the UK in 2000. On the contrary, Germany implemented three major reforms but nothing like a ten-year plan exists.

A further difference is that the German system applies reference pricing and aims at saving €500 million health expenditures in 2007 by introducing price allowances between health insurances and pharmaceutical providers (Wirthschaftslexikon24.net). This shift along the cost containment dimension indirectly influences the governance dimension because it fosters competition amongst drug providers, which changes the German system towards NHS characteristics. Moreover, the UK aims at maintaining the almost free access to health care which explains why there can be less changes observed along the cost containment dimension. Germany chose a different approach by strongly increasing the copayments for patients, especially in 2003. Hence, the two systems completely differ on those indicators and in the end this explains why Germany implements more changes in the cost containment dimension that the UK. Lastly, it is important to mention that the NHS Plan (2000) set out large investments into health care, especially along the third dimension by implementing new institutions and investing in training measures in order to transform the system from "a 1940s system operating in a 21<sup>st</sup> century world" (The NHS Plan, 2000, p. 10) into one that suits the challenges and demands of the 21<sup>st</sup> century. Contrarily, Germany rather reforms its system by cost cuts and increasing social contributions as well as copayments and decreasing reimbursements.

All in all, it can be seen that there are many similar approaches and both health care systems somewhat shift away from ideal models and key characteristics identified by Hassenteufel and Palier (2007) and Freeman and Moran (2000). However, the UK focuses more on the governance dimension, whereas Germany implements most changes in the cost containment one, as claimed by theory. Hence, this chapter answered the third sub-question.

#### 7 Conclusion

First of all, it is important to mention that all of the research questions have been answered throughout the thesis, as indicated in the chapters. This part will summarize the findings of the thesis by giving the answer to the overall research question and will show whether the findings were as expected.

The central research question 'What health care reforms did the United Kingdom and Germany come up with during the period 2000 and 2010 in order to deal with aging population?' is answered mostly by the first two sub-questions. All in all, it can be said that due to the rising expenditures caused by aging populations Germany implemented various changes that shift the system away from the ideal model of a Health Insurance System. It changed along all three dimensions with the focus on the cost containment one, as predicted by Hassenteufel and Palier (2007). In the UK the rising health care costs from population aging led to changes along the second and third dimension only. Most reforms were concerned with enlarging services and creating a health care system that is custom-tailored to patient's needs in the 21<sup>st</sup> century for which several restructuring measures were implemented and money was invested, which rather suits the governance dimension.

As the analysis and comparison showed, the two systems implemented some similar measures in their health care reforms and also some features, which are typical for the other type of health care system. This means that the aging population encourages similar changes in health care policies of most different health care systems, which is against what has been expected in the beginning. This means that the relationship between population aging and cost containment exists. Since both countries face this problem (Table 3) they implement amongst others intermediate care, supporting the recovery at home and reducing time spent in hospitals, and adopting cost containment policies to cope with the increased cost caused by the elderly. Germany focuses even more on cost containment for two reasons, firstly, it has the highest share of old people in the EU and secondly because it is typical according to Hassenteufel and Palier (2007). Concerning the relationship between welfare state regimes and health care systems, depicted in Figure 1, the analysis showed that the relatively clear links are diminishing. The limited state intervention in corporatist welfare states, which tend to apply National Insurance Systems, decreases in Germany and the system becomes more centralized. The number of additional services covered decreases due to several changes along the cost containment dimension. Furthermore, market mechanisms and competition change the German system, being a corporatist welfare state, more towards NHS, which is ideally related to liberal welfare regimes. On the contrary, the state organized NHS gives more responsibility to smaller units which is rather a characteristic of corporatist welfare states and Health Insurance Systems. Thus, the clear lines modeled by the arrows become blurry and the health care systems converge to a certain degree when it comes to the changes implemented due to aging populations.

Lastly, the author would like to use the opportunity to suggest some follow up research. It would be interesting to analyze health care reforms of a country facing an aging population to one having a

similar system but no aging population. This study would further analyze the relationship between cost containment in health care policies and population aging. Furthermore, it would be interesting to undertake an analysis concerning the relationship of aging populations and health care reforms on indicators from the governance dimension more in detail, in order to see whether different health care systems implement similar institutional changes due to population aging. Lastly, an analysis of the changes implemented on the level of doctor's practices would be interesting, in order to see how the health care reforms affect the smallest units in the system and whether the cost containment policies are effective.

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# Appendix

Figure 2 Impatient waiting times, England, 2000-04



Source: The NHS Improvement Plan, 2004, p. 18

#### Figure 3 Population aged 65 plus measured at overall population at 1st January 2011

Translated this means:

Ever more old people

Less young, more old people: Populations structures are changing EU-wide. This demographic change is the consequences of steadily decreasing birth rates and steadily rising life expectancy.

# Immer mehr ältere Menschen

Weniger jüngere, immer mehr ältere Menschen: EU-weit verändert sich die Bevölkerungsstruktur. Dieser demografische Wandel ist die Folge von anhaltend niedrigen Geburtenraten und einer steigenden Lebenserwartung.

#### Anteil der Bevölkerung ab 65 Jahren an der Gesamtbevölkerung am 1. Januar 2011, in %



Source: Statistisches Bundesamt. (2012). *Alter im Wandel*. Wiesbaden: Statistisches Bundesamt Available at:

https://www.destatis.de/DE/Publikationen/Thematisch/Bevoelkerung/Bevoelkerungsstand/AlterimWandel0010017129004.pdf? blob=pu blicationFile

Table 10 Overview on Germa	n health care reform	is analyzed in this thesis
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Year	Name of the reform
2000	Gesetzliche Krankenversicherungs (GKV)-
	Gesundheitsreform [SHI Reform]
2001	Gesetz zur Ablösung des Arznei- und Heilmittel-
	budgets (ABAG) [Law on resovling budget for
	pharmaceuticals]
2002	Arzneimittelausgaben-Begrenzungsgesetz
	(AABG) and Beitragssicherungsgesetz (BSSichG)
	[Law on restrictions to expenditures on pharma-
	ceuticals] and [Law on securing contributions)
2003	GKV-Modernisierungsgesetz (GKV-GMG)
	[SHI Modernization Act]
2007	GKV-Wettbewerbsstärkungsgesetz (GKV-WSG)
	[SHI Competition Enhancement Act]
2010	GKV-Finanzierungsgesetz (GKV-FinG)
	[SHI Financing Act]

Table 11 Overview on UK health care reforms analyzed in this thesis

Year	Name of the reform	
2000	NHS Plan	
2002	NHS Reform and Health Care Professions Act	
2004	NHS Improvement Plan	
2005	Establishment of Institute of Innovation and	
	Improvement	
2006	White Paper "Our Health, Our Care, Our Say"	
2007	Mental Health Act and Local Government and	
	Public Involvement Act	
2009	The NHS Constitution	

Table 12 Overview on the set up of the two different health care systems

	UK	Germany		
Financing	By taxes	By social contributions		
Reimbursement	In advance ( $\rightarrow$ to control costs)	Afterwards (→ demand-		
		oriented)		
Number of actors	Centralized: State-organized;	Decentralized: State-organized		
	small number of actors	but incorporation of health		
		funds and unions of physicians		
		in decision-making process;		
		large number of actors		
Access to physicians	Directly to GPs	Directly to general practitioners		
	Waiting lists for specialists	as well as specialists		
Physician's remuneration	Capitation based	Fee-for-service		