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Convergence or Divergence of OECD Health Care Systems?

Claus Wendt
Simone Grimmeisen
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No. 9

Universität Bremen • University of Bremen
Hochschule Bremen • University of Applied Sciences
Internationale Universität Bremen (IUB) • International University Bremen (IUB)

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Universität Bremen
Sonderforschungsbereich 597 / Collaborative Research Center 597
Staatlichkeit im Wandel / Transformations of the State
Postfach 33 04 40
D - 28334 Bremen
Tel.:+ 49 421 218-8720
Fax:+ 49 421 218-8721
Homepage: http://www.staatlichkeit.uni-bremen.de

Convergence or Divergence of OECD Health Care Systems?

ABSTRACT

This article focuses on two major questions concerning the changing role of the state in the health care systems of OECD countries. Firstly, we ask whether major changes in the *level* of state involvement (in health care systems) have occurred in the past thirty years. Given the fact that three types of health care systems – which are characterized by a distinct role of the state – evolved during the golden age, we secondly discuss how this distinctiveness – or more technically: *variance* – has changed in the period under scrutiny. While many authors analysing health policy changes exclusively concentrate on finance and expenditure data, we simultaneously consider financing, service provision, and regulation.

As far as *financing* is concerned, we observe a small shift from the public to the private sphere with a tendency towards convergence in this dimension. Expanding Peter Flora's "growth to limits" theses, due to the ongoing increase of total financing and the melting off of the public share "private growth and public limits" might be a future trend in the financing dimension of health care systems. The few data available on *service provision*, in contrast, show neither signs of retreat of the state nor of convergence. In the *regulation* dimension – which we analyse by picking major health system reforms in Germany, the United Kingdom and the United States – we see the introduction or strengthening of those co-ordination mechanisms (hierarchy, markets and self-regulation) which were traditionally weak in the respective type of health care system. "Gate-keeping" and DRG models are remarkable examples to show that health policy might increasingly be oriented at "best practices" even when the respective solutions are beyond the traditional path of reforms. Putting these findings together we find a tendency of convergence from distinct types towards mixed types of health care systems.

CONTENTS

Convergence or Divergence of OECD Health Care Systems?

INTRODUCTION

The last decade of comparative welfare state research has shown that advanced capitalist welfare states are facing enormous pressures in the prevalent environment of globalisation and permanent austerity. While for many years the nation state was able to exercise effective control over its social policy institutions, nowadays, a range of factors is likely to reduce the capacity of the nation state to finance as well as to provide the post-war level of welfare services. One of the central arguments that is put forward in the literature is that growing internal and external pressures will prompt governments to cut direct welfare financing and service provision, on the one hand, and that states will increasingly engage in the regulation of social services that are financed and provided by private institutions, on the other hand (Majone 1997).

Our paper seeks to build on these discussions by analysing recent developments in the field of health policy. We focus on the welfare scheme, which alongside pensions is the biggest single consumer of resources in modern welfare states in order to give an overview over the developments in welfare states in general – or as Michael Moran (2000: 139) has put it: ‘making sense of what is happening to the health care state is critical to making sense of what is happening to modern welfare states’.

In the course of the following pages, the paper addresses two major issues:

- First, the paper examines to what extent the *level of health care* financing and health care provision is changing in advanced health care systems. It also explores whether there are any signs of a convergence in regards to the level.
- Secondly, the paper investigates whether we witness a *change in the “role of the state”* in health care systems, i.e. whether there is evidence for a converging “role of the state” or whether there are first signs of a trade-off between financing and service provision on the one hand, and regulation, on the other hand.

Welfare State and Health Policy Convergence

Evidence from both welfare state and health policy literature suggests that welfare arrangements which are facing similar pressures are likely to adopt similar responses. This, so the argument, in turn will lead to a convergence of social policies in general, and of health policies in particular (Bonoli, George and Taylor-Gooby 1996). However, the mechanisms that are held responsible for this convergence process are rather diverse – and encompass both, endogenous and exogenous convergence factors:

(1) First of all, there is a popular branch of convergence literature which argues that increasing *globalisation* of national economies causes national governments to compete for ‘global capital, companies and labour especially by low-

ering taxes, by deregulating the labour markets and by cutting social provisions' (Kauto and Kvist 2002: 193). Consequently, it is argued, we witness an international "race towards the bottom", which in the medium term leads to a convergence of social policies/health policies towards a level 'well below those established by advanced welfare states in the post-1945 era' (Alber and Standing 2000: 101).

(2) Another branch of the literature, which also highlights exogenous convergence pressures, argues that *European Integration* via the processes of negative and positive integration leads to an increasing similarity among Europe's welfare states (Greve 1996; Taylor-Gooby 1996) – as well as among the European health care systems (Leidl 2001).

(3) Besides exogenous convergence pressures such as globalisation and Europeanization, the convergence literature has also isolated endogenous convergence pressures – as for instance *technical innovation* (Comas-Herrera 1999; McPherson 1990; Hsiao 1995). Today's patients, it is argued, have much easier access to information on new therapeutic appliances, and therefore push politicians as well as health care providers/insurers to make these therapies available as soon as possible. This, so the hypothesis, will lead to an upward convergence as health policy "latecomers" try to catch up with health policy "forerunners".

When reviewing the *empirical part* of the convergence literature we find a picture of inconsistency, which renders invalid any universal claim in favour of either welfare/health policy divergence or convergence (Kautto and Kvist 2002). There are both, authors who identify a 'fragile trend towards convergence' (Taylor-Gooby 1996: 216), and authors who find no indication for convergence at all (Alber and Standing 2000). Beside these extremes, the bulk of literature emphasises that social policies are converging in some respects and diverging/remaining constant in others (Castles 2004; Daguerre and Taylor-Gooby 2003) – a development which Seeleib-Kaiser (2001) has called "divergent convergence". This observed diversity of the results in empirical research is highly related to the differences in the design of the respective studies, especially as it pertains to the conceptualisation of convergence that is employed; the unit and level of analysis that the study focuses on; as well as the sample/period that is chosen for the observation. However, a review of empirical convergence studies in the field of welfare state and health care policy also shows that more research is needed in order to enhance and complete our empirical knowledge about convergence of social polices. This not only holds true for questions regarding convergence of welfare regimes or welfare models in general, but also for questions regarding convergence processes within different policy fields – such as health care policy – in particular.

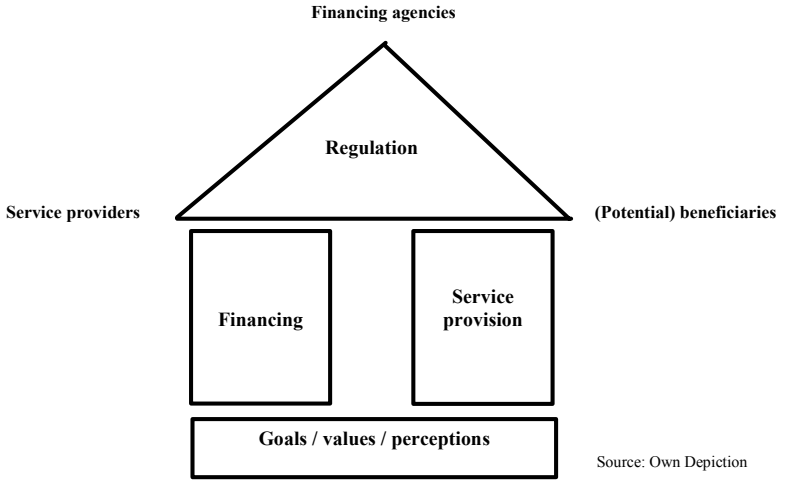
The lack of empirical evidence provided by the convergence literature prompted us to investigate the research questions outlined above. We approach the issue by first introducing a three-dimensional concept for the comparison of health care systems and then discussing the methods that are employed in this study.[1] In *section 3* we then provide some first empirical indicators regarding the changes of the *level* and the *structure* (public-private mix) in health care systems. Here, we compare 23 OECD countries in the period from the “golden age” of the welfare state until today. Finally, *section 4* draws first conclusions for the possible connection of changes in financing and service provision on the one hand and regulation on the other hand.

CONCEPT AND METHODOLOGICAL APPROACH

A three-dimensional concept for the analysis of health care systems

For our analysis of convergence processes in the health care systems of advanced industrial states we draw on a concept which not only allows to take into account the health care system in total but also allows to analyse the changing “role of the state” within the respective health care system. While many health care system comparisons more or less exclusively focus on financing and expenditure data (see e.g. OECD various issues; Comas-Herrera 1999; Leidl 2001; Castles 2004), our concept as depicted in *figure 1* tries to link the financing dimension with the dimensions of service provision and regulation. This three-dimensional concept provides us with an analytical tool which facilitates to simultaneously analyse the public-private mix in the field of health financing and health care provision as well as the amount to which private financing and service provision is regulated by state agencies.

Figure 1: *Financing, service provision, and regulation in health care systems*



Source: Own Depiction

[1] This concept has been developed within the context of the project „The changing role of the state in OECD health care systems“ as part of the collaborative research centre (CRC) 597 „Transformations of the state“ at Bremen University (www.state.uni-bremen.de).

As our concept aims at capturing even small-sized changes in the level of health care financing and provision as well as in the role of the state, it is important to further decompose its three major components, i.e. the financing and service provision “pillars” and the regulation “roof”. (Goals, values, and perceptions, which build the normative foundation of health care systems, are not dealt with in this paper.)

Hence, in a first step, we divide the *financing dimension* into public and private sources. Secondly, we subdivide public sources into taxes (and other governmental sources of financing) and social insurance contributions. Private sources, on the other hand, are divided into private insurance financing and out-of-pocket payments (Saltman 2003; Wendt 2003). This subdivision of the financing dimension is of importance as it makes a difference for the interventional power of the state whether services are financed directly by the state, or indirectly through para-fiscal social insurance agencies.

In a second step, the *service dimension*, too, can be divided into public and private provision of health care. While in the following analyses no further subdivision is made, it is however important to mention that our concept – in line with Saltman (2003) – classifies health care provision delivered by non-governmental not-for-profit actors such as charitable organisations, trade unions, social insurance agencies etc. as private.

The *regulation dimension*, finally, is conceptually subdivided along the relations between financing agencies, providers and (potential) beneficiaries (see *figure 1*). Referring to the bilateral relationships between the three major stakeholders of a health care system, at least six major areas of regulation result:

Between (potential) beneficiaries and financing agencies:

1. Coverage: Inclusion and exclusion of beneficiaries
2. System of financing

Between financing agencies and services providers:

3. Remuneration of service providers
4. Access of service providers to the health care markets

Between service providers and patients:

5. Access of patients to service providers
6. Content of the benefit package

These relations can either be regulated and controlled by the state, by market mechanisms, or by self-regulation of other non-governmental actors as, for example, social insurance institutions.

Data and methods

The sample for our data analysis includes countries that have developed welfare states and that were already members of the OECD in the 1970s. On the basis of the first criterion we exclude Turkey, while on the basis of the second criterion we exclude Mexico,

the Czech Republic, Hungary, Korea, Poland, and the Slovak Republic. Hence, our analysis of convergence processes in health care systems includes 23 of the 30 current OECD countries (OECD 23). We focus on the years from 1970 to 2000 as this provides the opportunity to capture the effects of the oil price shocks of the 1970s as well as the possible effects of the European integration and the process of accelerating globalisation in the 1990s. As the OECD does not provide reliable data for all points in time, the analysis is partly based on less than 23 countries.

In order to control whether the member states of the European Community/European Union (EC/EU) experience a stronger convergence trend than the rest of the OECD countries, we separately analyse the trends in the group of countries that were EC/EU members before 1996 (EU 12). (For the “EU-latecomers” Austria, Finland, and Sweden, the period until the year 2000 presumably has been too short for a possible harmonisation along EU standards.)

In order to see whether the type of health care system is interrelated with the degree of convergence or divergence, additionally we also analyse the developments of two types of health care systems: the national health service and the social insurance-type health care systems. A possible third type, the private health system, is not systematically included in the analysis of the financing and service provision dimension since of all 23 OECD countries only the United States matches this type of system.[2] With respect to regulation, however, the private US system is contrasted with the British NHS and the German social health insurance system. In the NHS type health care system, the state is responsible for service provision, financing and regulation. Furthermore, the system is characterised by encompassing services which usually cover the whole population, by tax financing, and by a hierarchical management and planning model. In social insurance-type health care systems, in comparison, services are made available by public providers, by non-governmental not-for-profit organisations, and by private for-profit enterprises. Financing is public, not through the general budget, but through social insurance funds which are public para-fiscal agencies. While social law provides some regulatory framework, detailed regulation including access to health care markets, remuneration systems, and the detailed definition of the benefit catalogue is left to negotiations between sickness funds and service providers. Depending on whether the health care system is predominantly financed by taxes, social insurance contributions, or private funds, we classify Austria, Belgium, France, Germany, Japan, Luxembourg, Nether-

[2] Actually, there is virtually no country relying on a pure NHS, social insurance or private system. Countries are rather characterised by the different weight they gave to these principles. Thus, if we refer to NHS-systems, social insurance systems or private systems the predominant mode in the respective country is highlighted which does not deny the existence of other modes.

lands, and Switzerland as social insurance systems; accordingly, Australia, Canada, Denmark, Finland, Greece, Iceland, Ireland, Italy, New Zealand, Norway, Portugal, Spain, Sweden, and United Kingdom on the other hand are classified as NHS-systems.

In order to define a *measurement* for convergence and/or divergence in OECD health care systems, we use the “coefficient of variation” which is calculated as the ratio of standard deviation of the distribution and the mean times 100.

FIRST RESULTS: CHANGES IN FINANCING, PROVISION AND REGULATION OF HEALTH CARE SERVICES

This first application of our concept is based on OECD Health Data 2002 – which, however, entails several restrictions for the data analysis[3]: First of all, the OECD only provides detailed information for the financing dimension as far as the sources – i.e. tax financing, social insurance, private insurance, and out-of-pocket financing – are concerned. The data, however, does not provide equivalent information for the service provision or regulation dimension. Secondly, in the service dimension, in-patient beds are divided into public and private in-patient beds, but no data is provided on hospital beds of non-governmental not-for-profit organisations. Apart from this, the database provides no further service indicators that are differentiated between public and private. For this reasons, in this paper we are forced to reduce the trichotomous conception of the financing and service provision dimension outlined above to a simplified dichotomous division into a public and a private sphere. Since the OECD provides no data for the regulation dimension at all, the “roof” part of the analysis is based on national sources and on secondary literature.

Financing

While most authors analysing the financing dimension focus exclusively on public health care financing (e.g. Comas-Herrera 1999; Castles 2004), we analyse total health care financing as well as the public share of total financing – or both, the *level* and *structure* of the financing “pillar”.

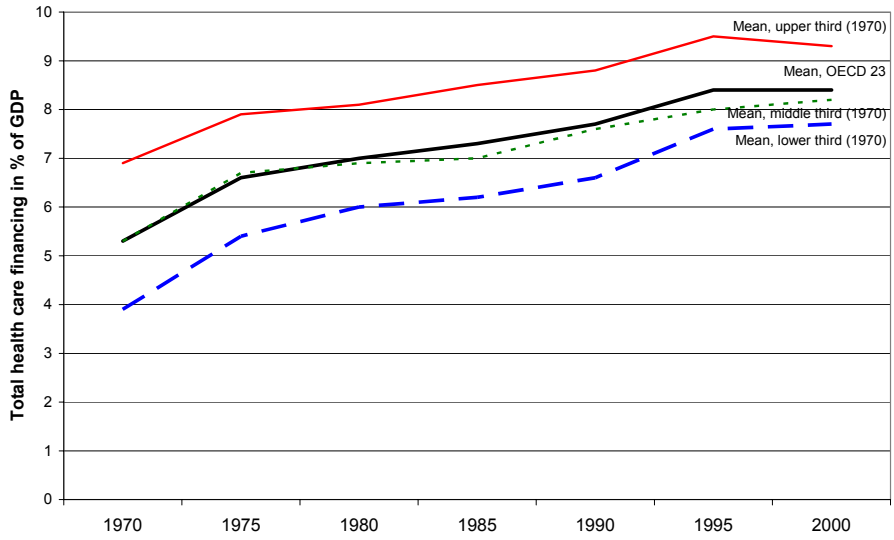
As to the *level* of health care financing, we find that for all 23 OECD countries, average total health care financing as a share of gross domestic product (GDP) has increased from 5.3% in 1970 to 8.4% in 2000 (see *figure 2*). When dividing OECD countries – according to their level of total health care financing in 1970 – into an upper, middle, and lower third[4], from 1970 to 1980 we find the highest increase of total financing

[3] For a full application of our concept, further information is currently collected by the research project “The changing role of the state in OECD health care systems” at Bremen University.

[4] While percentiles are a further measurement of convergent or divergent processes, the calculation of an upper, middle and lower third can help to identify possible catch-up processes.

(+55.5%) in the lower third, while the level in the medium third increased by 30.3%, and by 18.3% in the upper third. From 1990 to 2000, the “latecomers” again show the highest increase – a development which provides some support for the “growth to limits” (Peter Flora 1986) as well as for the “catch-up” hypothesis (Alber and Standing 2000). This assumption is further emphasised by the fact that with a 9.5% share of GDP in the 1990s, most countries of the upper third seem to have reached their limit of health care financing, while especially the countries in the lower third have still not implemented effective cost containment measures. While the high increase of total health care financing until the 1990s supports the thesis that costs increased due to demographic changes and technical innovation, the fact that the increase of total health care financing levelled off in the 1990s gives some support to the thesis that globalisation pressures restrained welfare growth.

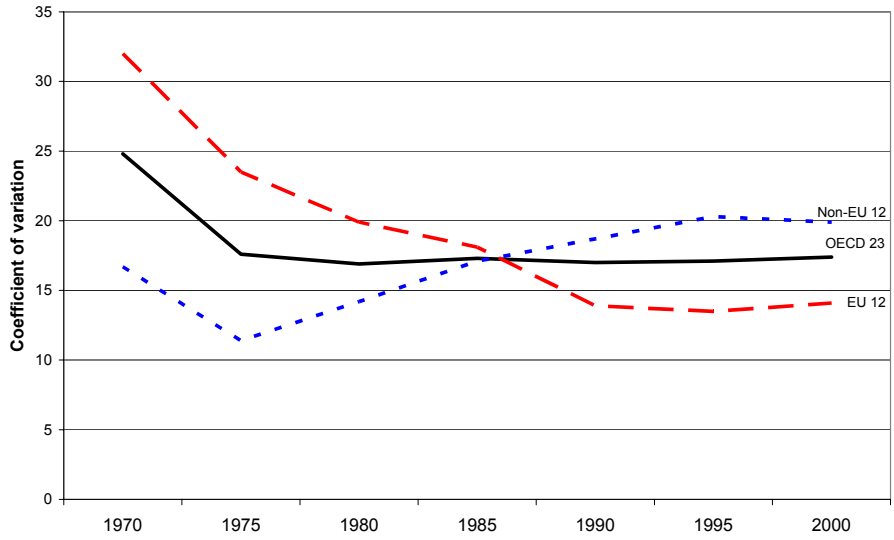
Figure 2: *Total health care financing as a percentage of GDP, 1970-2000 (OECD 23)*



Source: OECD Health Data 2002

Turning to the dispersion among countries, we find that from 1970 to 2000, the coefficient of variation has decreased for all 23 OECD countries from 24.8 to 17.4. The main part of this convergence process, however, has already been completed in 1975 (see *figure 3*). Expanding Castles’ analysis – which exclusively focuses on public health expenditure (Castles 2004) – we find considerable differences in the development of EC/EU member states (EU 12) and the rest of the OECD countries. While in 1970, the coefficient of variation for EU 12 countries (32.0) was considerably higher than for all other OECD countries (24.8), within the following 30 years there was convergence in the former group of countries, but divergence in the latter (see *figure 3*). In this context it is particularly noteworthy that the process of convergence continued in the EU 12 countries until 1990 – a development which at least provides some evidence for the thesis of increasing harmonisation due to European Integration.

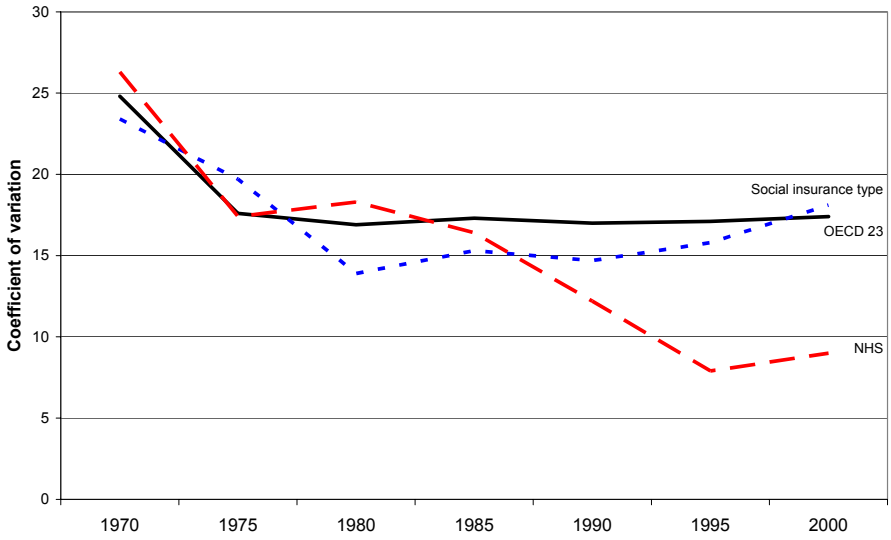
Figure 3: *Coefficient of variation – total health care financing as a percentage of GDP, 1970-2000 (OECD 23, EU 12 and Non-EU 12)*



Source: OECD Health Data 2002

A comparison of the “types of health care systems” shows a higher convergence *within* the NHS-type systems than *within* the social insurance-type systems. Between 1970 and 2000, the coefficient of variation changed from 26.3 to 9.0 for the former type, and from 23.4 to 18.1, for the latter type (see *figure 4*). An important factor for the different developments of the two types of systems might have been the higher potential for cost containment of the NHS systems which finally resulted in a levelling process of “leaders” and “laggards”. While the average of total health expenditure as a percentage of GDP remained more or less constant in both types of systems until 1975, in 2000, the average share was 7.5% higher in social insurance systems than in NHS systems (OECD Health Data 2002, own calculation). These results support the findings of Jens Alber (1989), who argues that in periods of welfare state expansion total financing increases in both, NHS-systems and social insurance systems, while in times of austerity, NHS-systems are comparatively more successful in controlling the growth of health care expenditure/financing.

Figure 4: *Coefficient of variation: total health care financing as a percentage of GDP, 1970-2000 (OECD 23, NHS type and Social insurance type)*



Source: OECD Health Data 2002

As far as the *structure* of health care financing – i.e. the public-private mix – is concerned, we found that the share of public financing has increased from 71.6% to 76.7% in the period from 1970 to 1975 (for the purpose of this paper we did not further differentiate between tax financing and social insurance financing). Thus, the expansion of health care financing in the 1970s has been made possible by an increase in public financing. The public share remained at a level above 75% until 1990 and decreased slightly within the following years (see appendix, *table A1*). So, not only the level, but also the structure of health financing converged in the OECD world. The coefficient of variation of the share of public financing for all health care systems declined from 21.0 in 1970 to 15.2 in 2000. This convergence process reflects the fact that countries with a public financing below average increased the public share by 10.8% between 1970 and 1980. The public share of the countries of the upper third decreased by 4.0% from 1980 to 1990. In the 1990s, however, the public share of financing was reduced in the upper as well as in the middle and lower third. In only 4 out of 23 countries (Australia, Ireland, Portugal, United States) the public share still increased in this period.

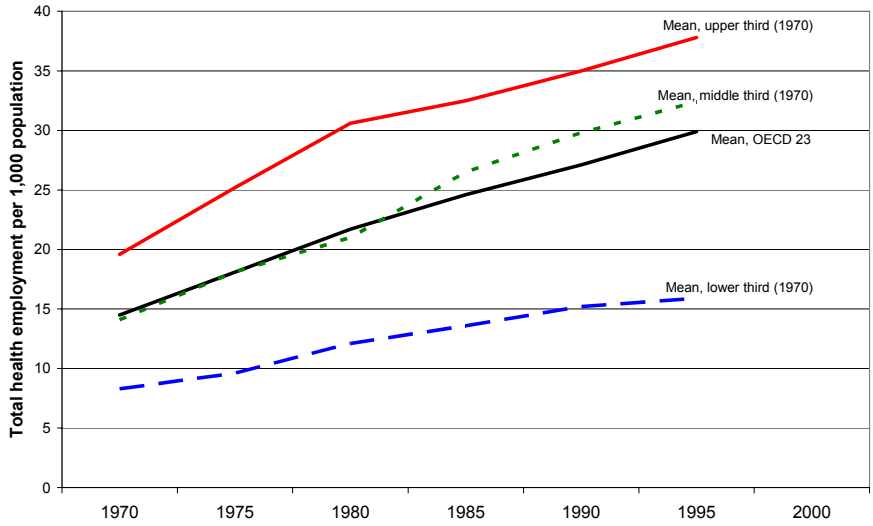
As far as public financing is concerned, again we observe a process of higher convergence within the EU 12 countries than in the rest of the sample. The coefficient of variation decreased from 21.3 in 1970 to 13.3 in 2000 in EU member states and from 21.6 to 17.3 in the remaining OECD countries. This indicates a greater harmonisation in the health care sector of EU countries in comparison to other countries. While the public share of health care financing remained rather divergent in social insurance systems between 1970 and 2000, we find a significant convergence trend in the group of NHS-systems in the same period (see appendix, *table A1*). As already sketched out above, the

higher convergence of the level as well as the structure of health care financing might be related to the higher potential for state intervention in NHS-type systems (Alber 1989).

Service Provision

According to our concept, the service dimension focuses on changes in public, non-governmental non-profit, as well as in private for-profit service provision. Unfortunately, however, OECD Health Data does not provide sufficient information for such a differentiation. As far as public and private services are concerned, OECD merely provides information on in-patient beds. As a consequence, the following empirical analysis will only cover a very limited part of our outlined concept.

Figure 5: *Total health employment per 1,000 inhabitants, 1970-1995 (OECD 23)*



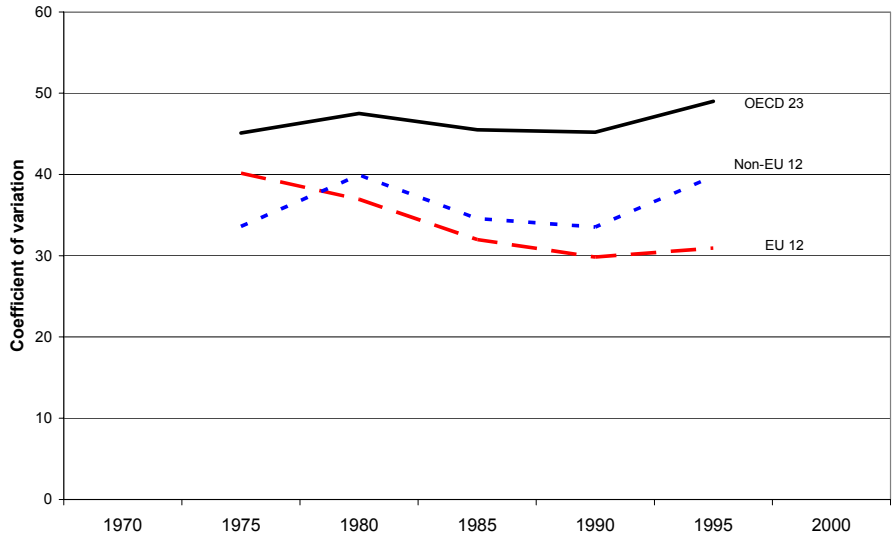
Source: OECD Health Data 2002

As in the financing dimension, both *level* and *structure* of the service “pillar” are explored. As regards the *level*, the analysis of the density of total health employment shows a significant increase in OECD countries reaching from 14.5 per 1,000 inhabitants in 1970 to 29.9 per 1,000 inhabitants in 1995 (see *figure 5*). When we divide OECD countries (according to the level of total health employment in 1970) in an upper, middle, and lower group we find that the countries of the middle third catch up with countries of the upper third, while the lowest third falls behind. In contrast to total health care financing we thus find no “saturation” in the upper third and therefore countries with a below-average density of total health employment are not able to reduce the distance to the middle and upper third.

In contrast to the financing dimension, the coefficient of variation *increases* for all 23 OECD countries from 45.1 in 1975 to 49.0 in 1995. The comparison of EU 12 countries with the rest of the OECD countries for the period between 1975 and 1995, however, shows a convergence process for the former, but a divergent development for the

latter (with major deviations) (see *figure 6*). Corresponding to our findings in the financing dimension, the analysis of the level of health employment shows a process of convergence within the European Union. For an investigation of the types of health care systems we can rely on data from 1985 to 1995 only. Within this period, no clear-cut tendency can be identified. In comparison to NHS-systems, however, the social insurance systems are clearly more homogeneous when using this first indicator for the service dimension. The NHS-systems show a convergent development from 1980 to 1990, but a divergent development in the years to follow (see appendix, *table A2*).

Figure 6: *Coefficient of variation – total health employment per 1,000 inhabitants, 1975-1995 (OECD 23, EU 12 and Non-EU 12)*



Source: OECD Health Data 2002

A further indicator for the *level* of service provision in OECD health care systems is the number of in-patient beds per 1,000 inhabitants. This indicator has been selected since the OECD provides data on public as well as on private hospital beds and thus information on the role of the state in a pivotal health care sector. On average, OECD countries reduced the number of in-patient beds since the 1980s. Increasing pressure for cost containment as well as new medical (technological) appliances result in shorter hospital stays and therefore, fewer in-patient beds were needed. While Finland, Italy, Sweden, the United Kingdom, and the United States reduced the number of in-patient beds by more than 50% from 1970 to 2000, the reduction was less than 20% in Austria, Belgium, Germany, Island, Norway, and Spain (OECD Health Data 2002, own calculation). It is not surprising that the variation of OECD countries increased: the coefficient of variation changed from 29.3 in 1970 to 50.5 in 2000. In the group of EU 12 countries, the differences aggravated as well, but to a lower extent than in the rest of the OECD world. As far as the system types are concerned, we find a strongly divergent development in both, social insurance systems and NHS-systems. The variation, how-

ever, is lower in the former type than in the latter. While some NHS-systems (especially Canada, Denmark, Finland, Italy, Sweden, and United Kingdom) reduced the number of hospital beds on a high rate, other NHS-countries (Greece, Iceland, Ireland, Norway, Portugal, and Spain) show a more stable development (see appendix, *table A2*). On average, however, NHS-systems reduced the density of hospital beds from 10 beds per 1,000 inhabitants in the 1970s to 6 beds per 1,000 inhabitants in 2000, while social insurance systems provide a average rate of 10 to 11 in-patient beds per 1,000 inhabitants within the same period (OECD Health Data 2002, own calculation).

Finally, we focus on the *structure*, i.e. on the public-private mix of the service dimension. Here, the first indicator provided by OECD Health Data shows an increasing role of public service provision. The share of public hospital beds has increased from 67.1% in 1970 to 73.0% in 1980 and remained relatively stable for the following years. As in the financing dimension, our indicator for the service dimension shows no withdrawal of the public sphere. In addition, we see a slightly convergent development for the whole period. While countries of the lower third (especially Greece and Portugal) increased the public share of hospital beds, we find a “saturation” in the upper third, where the public share stays relatively constant. EU 12 countries again show a clearly convergent development, while in the rest of the OECD world the differences constantly remain on a high level. The comparison of “types of health care systems” indicates increasing differences of social insurance systems until 1990, followed by a process of convergence (however, only for 4 of 8 social insurance systems is data on public in-patient beds provided and therefore, this development is highly influenced by the Japanese case). In NHS-systems, on the other hand, we see a slightly convergent process from 1975 to 1990 since the “leaders” (Canada, Denmark, Finland, Norway, Sweden, United Kingdom) are already at or close to the upper limit of 100% while “laggards” (especially Greece and Spain) still increase the public share of hospital beds (see appendix, *table A2*; OECD Health Data 2002, own calculation).

Regulation

As we have seen in the previous sections, for the overall period from 1970 to 2000 there are no indicators for a retreat of the state from responsibilities of direct service provision in OECD countries. With respect to financing, we find a slow-down of growth rates of public health care financing, leading to a slight reduction of the public share since 1980. Thus, the introduction of cost containment measures in the 1980s and 1990s seems to have been (partly) effective. Given that many countries made attempts to reduce hospital beds, the high reduction of public as well as private in-patient beds (without a change of the public-private mix) could also indicate successful government attempts on cost containment.

For the scope of this paper it is not possible to compare for *all* countries the six relations between funds of financing, service providers, and beneficiaries that we introduced in *section 2*. We therefore select three “representative” countries to sketch changes of regulatory measures in different types of health care systems: the United Kingdom (NHS system), Germany (social insurance system), and the United States (private insurance system). The comparison is led by the question whether these regulations are likely to push the three types of health care systems in a similar direction. Since it is mainly the “role of the state” that shapes the character of the specific health care system, we concentrate on whether the changes are brought about by state regulation, by self-regulation within corporate structures, or by market forces.

Coverage

While in the United Kingdom the total population has been integrated in the NHS since 1948, in 2000, more than 90% of the German and about 45% of the US population are covered by public programmes (OECD Health Data 2002). Further parts of the population are covered by private insurances. In total, far less than 1% of the population in Germany, but about 15% of the population in the US remained without insurance coverage in 2000.

For the period of analysis from 1970 to 2000, no changes have taken place concerning public coverage in the United Kingdom. The coverage rate of private insurance, however, increased to a considerable extent in the early 1980s by promotion and some financial incentives – but not by state regulation – of the new Conservative government. Today, about 15% of the population possesses supplementary private insurance. In Germany, further parts of the population were included in the public health insurance in the 1970s (farmers, handicapped persons, students, and artists). Coverage of the public health insurance has therefore been widened by state regulation. In contrast to the UK, in Germany several groups of the population rely not only on supplementary, but on exclusive private coverage. First of all, civil servants are covered by a public tax-financed scheme that covers about half of all health care expenses and may (and regularly do) subscribe to private insurance to cover the missing parts. Secondly, high-income employees can opt-out of the public health insurance and subscribe exclusively to a private insurance. Thirdly, self-employed do not have mandatory public insurance coverage and can thus rely on private insurance only. While the inclusion of further groups of the population in the public health insurance during the 1970s reduced the group of potential subscribers for private health insurance, private coverage was expanded again in 1989 by the introduction of an exit option for high-income blue collar workers (Health Care Reform Act). Today, about 9% of the population possesses an exclusive and further 9% a supplementary private insurance (PKV-Verband 2000). In the United States, an important extension of public coverage took place in the 1960s

when Medicare and Medicaid were introduced. With the gradual inclusion of pregnant women and infants in the 1980s as well as with the introduction of the State Children's Health Insurance Program (SCHIP), the coverage rate of public programmes increased to 25% from the mid-1990s onwards. Private health insurance coverage of persons under 65 years of age increased slightly from 76% of total population in 1970 to about 78% in 1980. Since the peak in 1980 the share of people with private insurance has more or less constantly decreased. In 2001, only 71.5% of the non-elderly were covered by private insurance. Most of private coverage is employment-based, and 89% of these employees receive their coverage through managed care plans. In the last two decades, government implemented two major regulatory reforms of private insurance schemes: In 1985, the Consolidated Omnibus Budget Act (COBRA) gave workers under certain circumstances, such as voluntary or involuntary job loss or transition between jobs, the right to choose to continue group health benefits as provided by their group health plan. In 1996, the Health Insurance Portability and Accountability Act (HIPAA) guaranteed greater portability and continuation of group health insurance coverage.

To sum up, we find a slow process of convergence of the three types of health care systems. While the British NHS has integrated all citizens for more than half a century, public coverage was improved in the United States and in Germany by state regulation. Private coverage, on the other hand, slightly decreased in the US system by market forces. However, private coverage increased by promotion and some financial incentives by the state in the United Kingdom and to a certain extent by state regulation in Germany.

Financing

Regulation of health care financing is targeting at different sources of funds in the three selected countries. In the United Kingdom, 81.0% of the total health care budget is financed out of general government sources and 19.0% by private funds. In Germany, today only 6.4% is financed by general government, 69.4% by social insurance contributions, and 24.2% by private funds. In the United States, finally, 29.4% of the total health care budget is financed by general government, 14.9% by social insurance contributions, and 55.7% by private funds. Different forms of financing, however, require (and allow) a varying degree of state intervention in the three countries.

Cost containment has been a core feature of British health policy since the beginning of the NHS (Klein 2001). Although the increase of total health expenditure has been lower than in many other developed health care systems, in 1976 the government introduced a so-called "cash limits system." 'This meant that if the cost of providing any particular level of public provision rose faster than assumed by the Treasury ... there would be no automatic supplementation as in the past' but a compensatory cut in the input of real resources (Klein 2001: 83). Another major change took place when market

principles were introduced in the beginning of the 1990s. While the central funding and control system remained, the government advocated an improvement of cost efficiency through the implementation of a purchaser-provider split: Health authorities (purchaser of health care), GP Fundholder (purchaser and provider), and hospital trusts (provider) started to negotiate contracts on the volume and prices of services within the “internal health care market.” From the perspective of cost containment, however, the traditional central budgeting is still of higher importance than the market principles introduced in the 1990s. Private insurance has been promoted by the government since the early 1980s, but no major changes of regulatory measures can be detected with respect to the financing by private insurance.

In the German health insurance, contribution rates are traditionally fixed by each insurance fund (Alber 1992). While this model of self-regulation did not change in the first phase of cost containment policy in the second half of the 1970s, we find increasing government intervention from the late 1980s onwards. Even if the scope of self-regulation remained high, it increasingly took place in the “shadow of (state) hierarchy” (Fritz Scharpf). During the 1980s and 1990s, however, government more and more intervened into the collective agreements between associations of doctors and insurance funds. Negotiations on the contribution rate were highly influenced by the Health Care Structure Act (1992), the Health Care Reorganisation Act (1997), and the GKV Modernisation Act (2003). A second major example of state regulation in the field of health care financing is the introduction of free choice of sickness funds for the insured population and thus, competition between the main funds of financing. The launch of competition between sickness funds and of a risk-adjustment mechanism, which was established in the 1992 Health Care Structure Act but only became effective in 1996, for the first time introduced competition as a coordinating mechanism in its own right. This time, however, state regulation that aimed at cost containment resulted in the implementation of market principles. While the reduction of the number of sickness funds (from 875 in 1995 to 393 in 2000) can be seen as an effect of higher competition, neither contribution rates nor total health care financing has been stabilised in the period following 1996. Starting in the 1990s, the German government not only increased direct intervention within the social insurance system, but also within the field of private insurance. Private health insurance companies were forced to offer a so-called “standard tariff” containing the standard benefit package of public health insurance; the premium was limited to the maximum amount of money to be paid in public health insurance (Wasem 1995). By and large, the state thus uses private insurance companies as a means to achieve public social policy goals.

In the United States, federal government sets contribution rates, co-payments and deductibles for Medicare enrolees. In the US, the state directly intervened by setting a

constant rate for the contribution-like “payroll tax” that has been used to pay for hospital insurance as part of Medicare since the early 1980s. Private insurance premiums are in general subject to negotiations between employers and private insurance companies. The second branch of private insurance, i.e. self-insurance, was strongly promoted by government. The Employee Retirement Income Security Act (ERISA) of 1974, for example, exempted employers who self-insure their health benefit plans from the burdens of state regulation, taxation, and control. As a further act of protection, in 1996 self-funded non-federal government group health plans were exempted from HIPAA (see above). Furthermore, private health care financing is heavily regulated by governments' tax policy. Employers buy private health insurance as a tax-deductible business expense and provide it to employees as a tax-free benefit (Hacker 2002). The introduction of managed care altered the mode of financing in health insurance fundamentally. In contrast to the indemnity insurance, a prepaid per-capita payment is required in managed care plans, and premiums are calculated by means of risk pooling (Newbrander and Eichler 2001). From the late 1980s and early 1990s on, federal government has been actively encouraging Medicare beneficiaries to receive their health care through managed care organizations. Federal states also began to shift Medicaid recipients into managed care plans (Patel and Rushefsky 2002).

In a nutshell, we thus see an increased role of the state in regulating health care financing in Germany, where direct state intervention can be observed in private and in social health insurance. In Britain, the role of the state was strengthened through the introduction of cash limits. The central funding and control system remains unchallenged even after the introduction of internal markets. Only in the US can we observe some de-regulation for private insurance companies through ERISA, on the one hand, while on the other hand, a more hierarchical – but still non-state – control was introduced through managed care and HMOs.

Remuneration

In the out-patient health care sector, service providers can be remunerated by a salary, by per capita payments, by fee-for-service payments etc., while in the in-patient sector, hospitals are generally remunerated based on a fixed budget per year, on a per diem basis, or on diagnosis related groups (DRGs).

General practitioners in the United Kingdom are traditionally paid by a combination of general allowances and capitation, with the number of (potential) patients enrolled on their list as the major source of remuneration. In 1990, new contracts were implemented by state regulation, and the proportion of GPs income that derives from capitation payment was increased from 46% to 60%. The introduction of the GP fundholder status further increased the influence of GPs on his or her income by giving fundholding practices the opportunity not only to buy services from the cheapest service provider, but to

also provide certain services such as diagnosis tests within their own practice. Most hospitals that for many years received a fixed budget per year opted out from the direct control by NHS health authorities in the early 1990s and decided to obtain the status of hospital trust as it offered more autonomy to develop their own management structures, to decide on the number and structure of hospital personnel, or negotiate individual labour contracts (Glennerster and Matsaganis 1994; Robinson and Le Grand 1995).

In Germany, levels of remuneration in the out-patient sector are traditionally negotiated between the regional association of panel doctors as a monopolist on the one side and a wide range of sickness funds on the other side. In a number of subsequent reform steps, the state then gradually reduced differences between sickness funds and forced them to negotiate together, thus transforming the monopoly into a bilateral monopoly, which helped to mobilise some countervailing power. In the 1990s the federal government intervened directly in the corporatist self-regulating structure by introducing a (partly) flat-rate payment system for family doctors, fixed budgets for drug prescriptions etc. (Health Care Structure Act 1992). In the hospital sector, on the other hand, the state tried to initiate some corporatism by assigning power to legal private hospital associations (see Döhler and Manow 1992 for details). In effect, the state intervened in the self-regulating negotiation system, as it intended to strengthen it by changing the rules of the game.

In the United States, physicians who under traditional indemnity insurance schemes were generally paid on a fee-for-service basis, were confronted with completely changed incentive schemes in managed care systems. According to the respective managed care model, primary care physicians and specialists may be employees of the managed care organization and were either paid a salary, a (discounted) fee-for-service, or a capitation fee. The reimbursement system may comprehend incentives, such as bonuses, and disincentives, such as withholding of payment (Newbrander and Eichler 2001). Until the 1970s and early 1980s, hospitals in public as well as in private health insurance schemes were paid on a retrospective cost-reimbursement basis. Public insurers were the first to implement major payment reforms during the 1980s to overcome these negative incentives for cost containment. In 1983 the prospective payment system on DRG basis was introduced, uniquely effective for Medicare treatment.

To sum up the last developments in respect to remuneration, we see that methods were basically changed in US managed care systems from a previously dominant fee-for-service method to payments by salary, discounted fee-for-service, or capitation. In Germany, the fee-for-service method of remuneration maintained for self-employed medical doctors, but a flat-rate component was introduced for family doctors in the 1990s. GPs in the United Kingdom are still mainly financed on a per capita basis. As GP fundholder, however, self-employed doctors gained a higher influence on their in-

come. We therefore observe a development from highly diverse methods of remuneration in the three types of health care systems to a more common “mixed model of remuneration.” With respect to hospital financing, a first prospective payment system on DRG basis was introduced in the United States, and Germany is currently following the US example; and hospital trusts in the UK today negotiate with health authorities and GP fundholders on the number and prices of hospital treatment.

Access of service providers to the health care market

Access to the health care market can be highly regulated by the state if, for example, only a certain number of doctors is allowed to establish an own practice. Moreover, access can be regulated by market mechanisms. The in-patient health care sector, on the other hand, has remained a domain of state planning and control in most countries, although state regulation of private hospitals may vary from country to country.

In the British NHS, only general practitioners but not specialists have the right to offer services in private practice. Access for general practitioners, too, is highly regulated by government-determined limits on their number and location (Giaimo 2002), by the independent General Medical Council that is responsible for medical education and training, and by financial incentives to increase the number of settings in underdoctored areas (Stacy 1992). While the number of general practitioners is still highly controlled by central government (Döhler 1997), the way of access has dramatically changed in the last decade of the 20th century. Since the status of the GP fund holder depends on the number of patients on the practice list, most GPs today work in group practices, a few even as salaried employees (Ham 1999). In the hospital sector, a similar development took place. While the number and location of hospitals are still highly controlled by state authorities, the number of beds and health personnel can increasingly be decided by semi-independent hospital trusts that have to earn their revenue from contracts won with health authorities, GPs, or total fundholders (Glennerster and Matsangatis 1994; Ham 1999).

In Germany, the constitutional court overruled the restriction of access for medical doctors to the health care market in 1960. Therefore, within the self-regulated corporate system, only indirect control of the number and location of general practitioners and specialists was possible for many years. The only effective control mechanism was the restriction of access to medical schools. In 1992, however, for the first time a retirement age for doctors in office practice was introduced, and the association of panel doctors gained the power to refuse the entry of new doctors to open office practices if their region was judged to be oversupplied with self-employed doctors (Moran 1999; Giaimo 2002). In the hospital sector, however, the Länder were always in control of capacity planning. Even though since 1989 hospitals formally contract with sickness funds, fed-

eral “hospitals plans” are still decisive. Up to now, all attempts to strip the Länder from this power have failed.

In the United States, the increase of the number of medical doctors was promoted by large federal outlays for the training of medical school students in the 1960s and 1970s. The number of private settings also increased steadily. In 1997, however, the number of total outpatient practices that are directly financed by Medicare was limited by the Balanced Budget Act (Kronenfeld 2002). Further restrictions were set by government (Medicare/Medicaid) or by self-regulations in managed care plans (Newbrander and Eichler 2001). In the in-patient sector an important regulatory measure was introduced by the National Health Planning Act in 1974 by which a system of state and local health planning agencies was created, largely supported by federal funds. The law required all states to adopt certificate-of-need (CON) laws by 1980, subjecting expansion as well as new entry into the hospital market to a certification. Although federal funding of the programme was eliminated in 1986, about 30 states have continued the CON process without federal support (Laschober and Vertrees 1995).

Concerning the access of service providers to the health care market, major changes have occurred especially in the British and the US system. While hierarchical control mechanisms to channel the access of medical doctors were introduced in US managed care systems, the hierarchical planning and control system of the British NHS has been extenuated by the introduction of partly independent fundholding settings and NHS trusts. The British government still controls the number and location of general practitioners, but the way of access has changed dramatically. As GP fundholder or total fundholder practices, most general practitioners today cooperate with further health service providers in group practices and negotiate contracts with health authorities and hospital trusts. In comparison to these two systems, hardly any changes in the access of service providers to the German health care market took place. Only in the 1990s did state regulation introduce some limits to the entry of new doctors to open new office practices.

Access of patients to health care services

With respect to the access to health care services, patients may have a free choice of doctors and direct access to general practitioners as well as specialists, or the access to the health care system may be channelled by first-contact service providers.

In the national health system of the United Kingdom, access to health care services is constrained by a greater reliance on primary care physicians as health system gatekeepers. As a rule, patients are only permitted to select or change their primary care physician once per year, and for an access to specialists, patients need a referral from their GP. For British patients it is therefore hardly possible to track multiple physician contacts. Apart from the reduction of underdoctored areas and the decline of average list

size, access to service providers has been relieved in 1990 by allowing patients to change their GP under certain circumstances more often than once a year (to increase competition between doctors and make them more responsive to their patients). Since the average size of practices has been increased through the introduction of GP fundholding practices, access of patients to different service providers in group practices (GP fundholding practices, total fundholding practices etc.) has been improved.

In the German health insurance system, access to health services and the right of patients to choose their own doctor (general practitioner and specialist) has always been an important feature. While the de facto possibilities for “doctor hopping” increased in the late 1980s and early 1990s, in the second half of the 1990s sickness funds attempted to implement gate-keeping models. In the latest legislation (GKV Modernisation Act 2003) insurance funds are even encouraged to do so. Thus, sickness funds and the federal government made attempts to introduce more control. When effective, these models will on the one hand strengthen funds that want to become players rather than payers. On the other hand, this will lead to selective contracting between funds and groups of doctors, introducing elements of competition and market coordination.

Taking managed care as a path-breaking example, in the United States access of patients to health care providers is restricted in several ways. Generally, in managed care the choice of a health care provider is limited to a pre-selected network of providers, who are contracted with or salaried by the managed care organization. For further investigation, three different forms of managed care organizations have to be considered according to their difference in regulating access to patients. In health maintenance organizations (HMO), enrolees have no choice of provider and receive access to specialists only through the primary care provider. In preferred provider organizations (PPO) there is no such a gatekeeper. Members may also choose to opt out of the network of providers but at the cost of a higher out-of-pocket payment. In case of point-of-service (POS) plans, there is a primary care provider as gatekeeper and again members have the freedom to opt out at conditions of higher co-payment (Newbrander and Eichler 2001).

Our preliminary analysis of patients’ access to health care providers shows in all three countries developments towards a similar model of access. In the British NHS general practitioners are the first-contact service providers since the introduction of the NHS. In Germany, however, patients still have free access to general practitioners and specialists, but sickness funds are encouraged to implement gate-keeping models by the latest legislation. In the American managed care systems, access of patients to services as well as the choice of providers has been restricted by state regulation or by self-regulation measures in managed care programmes.

Benefit package

In general, insurance systems as well as national health services offer their clients certain types of care as ambulatory care, hospital care, pharmaceuticals etc. These services, however, are normally fixed in rather general terms, which necessitates a more precise description. Respective procedures for determining benefit packages vary between countries and times (see Jost 2004 for an overview).

In the United Kingdom, there has never been a benefit catalogue on the macro level. Within given budgets health authorities and service providers are free to decide about appropriate services. Since cost-containment can be executed through budgets, there is no need for cuts in a formal benefit catalogue in order to limit expenditure. Consequently, restrictions of benefits occur on a local level in the form of waiting lists and denial of certain services. The effect, however, was described as “postcode prescription”, referring to the fact that access to certain services depended on the area the patient was living in. In order to improve (regional) equity the National Institute for Clinical Excellence (NICE) was introduced in 1998. NICE is an independent institute consisting of representatives from all stakeholders of the health care system. It issues guidance on all type of services, but with a strong emphasis on pharmaceuticals. The NICE appraisal process for services follows a well-published standardised procedure including a health technology assessment (HTA) report, normally commissioned from a university or a research institute. NICE guidance are of fairly binding character, though regional health authorities still have some discretion and providers may follow a different course if they argue their case. Though cost control is still guaranteed through budgets, NICE gives a higher relevance to cost-effectiveness than e.g. the respective German bodies (Rothgang et al. 2004). The establishment of NICE limited the power of managers and the medical profession. Though the Department of Health still prioritises which services NICE has to evaluate, NICE was founded as an independent non-government institute with a quasi-corporatist structure. Consequently, NICE marks a strengthening of the bargaining mode and a partial retreat of the state.

In Germany, cuts in the benefit package have constantly been used as a measure of cost-containment. During the 1970s and 1980s, numerous deductibles and co-payments were introduced through legislation. Though there was some rhetoric claiming that they would be introduced in order to limit moral hazard behaviour, in fact they were just aiming at cost-containment. Only in the 1990s did efficiency considerations become more prominent, and the design of the benefit package started to follow the methods of evidence-based medicine and HTA. In the Health Care Reform Act of 1997, the Federal Committee of Physicians and Sickness Funds was given the power to evaluate existing and new technologies and services with respect to effectiveness and cost-effectiveness, and to decide whether they should be part of the publicly financed benefit package

(Greß et al. 2004). In the latest health care reform, which took effect in January 2004, these powers were consolidated and formalised in the new Joint Federal Committee, representing doctors, hospitals, and sickness funds. In its decisions about benefit catalogues, the Committee is advised by the newly-founded independent German Institute for Quality and Efficiency in Health Care. Thus, once again the state intervened in order to strengthen corporatist self-government following publicly decreed goals.

In the United States, there are some federal and state regulations concerning benefit packages for private insurances. However, in 1974, ERISA exempted those bigger “self-ensured” enterprises which operate in more than one state from public regulation, leaving only the much weaker federal regulations in place. Evidence-based medicine and health technology assessment was established through the public Agency for Health Care Research and Quality (AHRQ), which was founded in 1996 and which offers services to public and private bodies. For Medicare and Medicaid, Centers for Medicare and Medicaid Services (CMS) evaluate services based on HTA reports. Private insurance companies quite regularly follow the CMS decisions. Maybe the most interesting development in the context of decisions about benefit packages, however, is the development of HMOs and other forms of managed care. HMOs provide a high degree of vertical control over providing units and professionals – also with respect to the benefit catalogue.

While up to the 1990s decisions on the benefit catalogue were only discussed with respect to cost control, in the last decade we have witnessed an increasing interest in this issue from an efficiency point of view. The dawning of health technology assessment let to the founding of new institutions in all three countries. The criteria and procedures for determining benefit packages thus became more similar. In the United Kingdom, the power to decide which services are financed was taken away from the providers and given to an independent institute representing all stakeholders. In Germany, we once again observe state intervention, but it aimed at the strengthening of corporatist self-government. The US case, finally, is more difficult to evaluate due to the high level of fragmentation.

DISCUSSION

Health care systems in advanced welfare states show different developments with respect to the financing, provision, and regulation of health care services. Total health care financing is, however, on average continuously increasing in OECD countries, a process that only levelled off in the 1990s. While especially in the 1970s the expansion of the total health care budget was almost completely fed by an increase of public financing, in the 1990s, the expansion was driven by an increase in private financing. With respect to total health care financing we observe a higher increase in “laggard” countries and a lower increase in “pioneer” countries, and therefore a weak process of

convergence in the period from 1970 to 2000. These findings give some support to Peter Flora's "growth to limits" thesis. Due to the ongoing increase of total financing and the melting off of the public share, however, "private growth and public limits" might be a future trend in the financing dimension in the context of health care systems.

While this possible future trend has to be subject of further research, there are strong indicators against "downward convergence" or even a "race to the bottom" as a result of the increasing pressure extended by globalisation processes. Technical innovation and demographic changes seem to be still of high importance for the development of the health care budget in OECD countries. While the processes of convergence in EU 12 countries and of divergence in Non-EU 12 countries lend some support for the European Integration thesis, all these processes are still filtered by the institutional setting of the respective health care systems. Especially NHS-types are more similar and experienced a higher convergence than OECD health care systems in total. These results of the analysis of the financing dimension cannot be taken as an indicator for the development of health care systems in total. In the service provision dimension we find an ongoing increase of total health employment in OECD health care systems on average. This time, however, "laggards" are not able to catch up with "pioneer" countries, and no process of convergence can be observed with regard to this first indicator. However, our data indicate a slow process of convergence in EU 12 countries but no clear-cut trend in the rest of the OECD world. The differentiation by types of health care systems this time shows a divergent development in NHS systems, indicating that these systems follow a similar trend concerning cost containment, but diverse trends concerning the level of health care services. Social insurance systems again show no clear-cut trend. Focussing on the structure of health care financing and service provision, only a slight retreat of the state can be observed in the first dimension and an ongoing strong role of the state in the second dimension. The thesis of a trade-off between direct financing and private service provision by the state, on the one hand, and state regulation, on the other hand, is therefore not supported by our analysis.

The comparative analysis of the regulation dimension shows a changing role of the state (but, however, not as a compensation for a reduced role of the state in direct financing and service provision). As demonstrated by the developments of the health care systems of the United Kingdom, Germany and the United States, reform strategies varied from country to country. Sometimes, however, countries passed over their system-specific reform path. While Germany and the United Kingdom introduced some market principles, hierarchical elements were implemented in the market-based system of the United States. This indicates a convergence of the way in which different health care systems are regulated. By introducing "internal markets," the UK government reduced direct regulation and increased the role of competition between hospitals for contracts

with health authorities and fundholding GPs. In Germany, instead of regulating by decree that the main part of the working population has to be a member of a certain sickness fund, employees today have a free choice of sickness funds. The resulting competition is, among other things, targeted at making funds more responsive to insured persons. In the United States, however, managed care models have been becoming increasingly important, and those models contain certain hierarchical elements as for example direct control of the method of remuneration for service providers. With respect to the benefit package we observe another “meta-trend”: the heralding of health technology assessment as a standardised procedure for the determination of benefit packages. “Gate-keeping” and DRG models are further remarkable examples to show that health policy might increasingly be oriented at “best practices” even when the respective solutions are beyond the traditional path of reforms. The introduction of internal markets, too, indicates an increasing importance of policy learning. This time, the United Kingdom followed the US example. Our comparison of the regulation dimension, however only includes the health care systems of the United Kingdom, Germany, and the United States. Whether (state) regulation in health care systems becomes more similar in the OECD world in total is therefore subject to future research.

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BIOGRAPHICAL NOTE

Heinz Rothgang is Assistant Professor at the Research Centre on Transformations of the State (TranState) and at the Centre for Social Policy Reseach (CeS) at the University of Bremen. Together with **Mirella Cacace** (case study: United States), **Simone**

Grimmeisen (case study: United Kingdom), and **Claus Wendt** (case study: Germany; plus international comparison) he belongs as a principal investigator to the TranState research group on ‘The Changing Role of the State in OECD Health Care Systems’. Recent articles by some of the authors are: H. Rothgang, Providing Long-Term Care for the Elderly in Germany. Projections on Public Long-Term Care Insurance Financing. In G. Hullen (ed.), *Living Arrangements and Households – Methods and Results of Demographic Projections* (Wiesbaden: Bundesinstitut für Bevölkerungsforschung 2003), pp. 95-112; S. Greß, D. Niebuhr, H. Rothgang, and J. Wasem, Benefit Decisions in German Social Health Insurance. In T. S. Jost (ed.), *Health Care Coverage Determinations* (Buckingham: Open University Press 2004) pp. 115-131, forthcoming; C. Wendt and T. Thompson, The Need for Social Austerity versus Structural Reform in European Health Systems: A Four-Country Comparison of Health Reforms, *International Journal of Health Services* 2004, **3**4 (3), pp. 415-433*;* J. Kohl and C. Wendt, Satisfaction with Health Care Systems. A Comparison of EU Countries. In W. Glatzer, S. v. Below, and M. Stoffregen (eds.), *Challenges for the Quality of Life in Contemporary Societies* (Dordrecht, NL etc.: Kluwer Academic Publishers 2004, forthcoming).

Claus Wendt

Telephon:	+49 421 218- 8729
Fax:	+49 421 218-8721
E-Mail:	claus.wendt@sfb597.uni-bremen.de
Address:	Universität Bremen, Sonderforschungsbereich „Staatlichkeit im Wandel“, Linzer Strasse 9a, D 28359 Bremen

APPENDIX

Table A1: Changes in the level and structure of health care financing

								Change in %			
	1970	**1975**	**1980**	**1985**	**1990**	**1995**	**2000**	**70-80**	**80-90**	**90-00**	**70-00**
A. Total health care financing as a percentage of GDP[a)]											
Mean	**5.3**	**6.6**	**7.0**	**7.3**	**7.7**	**8.4**	**8.4**	**31.2**	**10.0**	**9.1**	**57.5**
Mean – upper third (1970)	6.9	7.9	8.1	8.5	8.8	9.5	9.3	18.3	8.7	5.4	35.5
Mean – middle third (1970)	5.3	6.7	6.9	7.0	7.6	8.0	8.2	30.3	10.2	7.6	54.4
Mean – lower third (1970)	3.9	5.4	6.0	6.2	6.6	7.6	7.7	55.5	8.7	17.0	97.8
Coefficient of Variation	**24.8**	**17.6**	**16.9**	**17.3**	**17.0**	**17.1**	**17.4**				
Coeff. of Var. EU 12	32.0	23.5	19.9	18.1	13.9	13.5	14.1				
Coeff. of Var. Non-EU 12	16.7	11.4	14.2	17.1	18.7	20.3	19.9				
Coeff. of Var. Soc. Insur. Systems	23.4	19.7	13.9	15.3	14.7	15.8	18.1				
Coeff. of Var. NHS-Systems	26.3	17.4	18.3	16.4	12.2	7.9	9.0				
B. Public health care financing as a percentage of total health care financing[b)]											
Mean	**71.6**	**76.7**	**76.3**	**76.2**	**75.4**	**73.1**	**73.3**	**6.6**	**-1.2**	**-2.8**	**2.3**
Mean – upper third (1970)	86.5	89.5	89.0	87.3	85.4	83.4	83.0	2.9	-4.0	-2.8	-4.1
Mean – middle third (1970)	73.4	76.6	79.2	78.0	77.6	75.0	74.9	7.9	-1.9	-3.5	2.1
Mean – lower third (1970)	54.9	62.0	60.8	62.9	63.1	60.7	61.9	10.8	3.8	-1.9	12.8
Coefficient of Variation	**21.0**	**17.1**	**17.7**	**16.7**	**15.4**	**15.9**	**15.2**				
Coeff. of Var. EU 12	21.3	13.4	15.3	14.2	12.3	14.8	13.3				
Coeff. of Var. Non-EU 12	21.6	20.0	20.1	19.0	18.5	17.6	17.3				
Coeff. of Var. Soc. Insur. Systems	15.8	14.4	14.2	11.4	12.8	17.0	17.1				
Coeff. of Var. NHS-Systems	18.3	12.0	14.2	12.3	10.5	12.3	10.3				

Notes: a) OECD 23; 1970: Australia: data for the previous year; Denmark, Netherlands: data for the following year; France: data missing; 1975: France, Greece: data missing; 1980: Italy: data for the previous year; France: data missing; 1985: Greece: data for the following year; France, Italy: data missing; 2000: Australia, Germany, Iceland, Japan, Luxembourg, Norway, Sweden, Switzerland: data for the previous year.

b) OECD 23 minus Belgium and France; 1970: Australia: data for the previous year; Denmark, Netherlands: data for the following year; 1975: Greece: data missing; 1980: Italy: data for the previous year; 1985: Greece: data for the following year; Italy: data missing; 2000: Australia, Germany, Iceland, Japan, Luxembourg, Norway, Sweden, Switzerland: data for the previous year.

Source: OECD Health Data 2002, own calculation

Table A2: Changes in the level and structure of health care services

								Change in %			
	1970	**1975**	**1980**	**1985**	**1990**	**1995**	**2000**	**70-80**	**80-90**	**90-00**	**70-00**
A. Total health employment per 1,000 population[a)]											
Mean	**14.5**	**18.1**	**21.7**	**24.6**	**27.1**	**29.9**	**26.7**	**49.6**	**24.7**	**8.5**	**83.7**
Mean – upper third (1970)	19.6	25.2	30.6	32.5	35.0	37.8	38.5	59.7	14.4	10.0	101.0
Mean – middle third (1970)	14.1	18.1	21.0	26.5	29.8	32.4	33.3	49.3	42.0	11.7	136.7
Mean – lower third (1970)	8.3	9.6	12.1	13.6	15.2	15.9	17.0	45.2	26.4	11.6	104.8
Coefficien of Variation		**45.1**	**47.5**	**45.5**	**45.2**	**49.0**					
Coeff. of Var. EU 12		40.14	36.94	31.99	29.85	30.94					
Coeff. of Var. Non-EU 12		33.61	39.93	34.58	33.53	39.78					
Coeff. of Var. Soc. Insur. Systems				39.0	45.0	43.5					
Coeff. of Var. NHS-Systems		50.0	55.3	52.0	49.7	55.7					
B. In-patient beds per 1,000 population[b)]											
Mean	**10.2**	**10.5**	**10.7**	**10.2**	**9.4**	**8.1**	**7.2**	**5.1**	**-11.7**	**-23.3**	**-28.8**
Mean – upper third (1970)	13.1	13.6	14.1	13.8	13.3	11.0	9.8	8.2	-5.9	-26	-24.7
Mean – middle third (1970)	9.9	10.1	9.7	9.0	8.0	6.9	6.2	-2.0	-18.2	-21.7	-37.2
Mean – lower third (1970)	6.4	7.0	7.7	7.1	6.5	5.8	5.5	19.5	-15.5	-15.4	-14.6
Coefficient of Variation	**29.3**	**30.2**	**32.4**	**35.7**	**40.6**	**45.8**	**50.5**				
Coeff. of Var. EU 12	29.4	27.0	30.0	33.9	35.3	36.6	39.5				
Coeff. of Var. Non-EU 12	24.6	27.0	29.9	31.7	37.3	48.8	58.2				
Coeff. of Var. Soc. Insur. Systems	14.0	11.2	11.8	15.4	22.6	29.0	31.8				
Coeff. of Var. NHS-Systems	35.6	36.6	38.3	42.1	46.9	51.1	51.3				
C. Public in-patient beds as a percentage of total in-patient beds[c)]											
Mean	**67.1**	**70.4**	**73.0**	**73.1**	**72.7**	**72.3**	**72.7**	**8.9**	**-0.5**	**0.1**	**8.4**
Mean – upper third (1970)	97.2	97.1	97.6	97.3	97.3	95.2	98.1	0.4	-0.3	0.8	0.9
Mean – middle third (1970)	70.0	70.3	70.0	68.2	65.8	63.8	62.1	0.0	-6.0	-5.6	-11.3
Mean – lower third (1970)	41.2	43.8	46.6	48.8	49.9	53.4	58.0	13.0	7.2	16.2	40.7
Coefficient of Variation	**39.1**	**34.7**	**34.8**	**34.7**	**35.0**	**31.5**	**31.3**				
Coeff. of Var. EU 12	36.8	27.1	27.9	23.0	21.5	22.3	24.1				
Coeff. of Var. Non-EU 12	42.1	41.3	42.9	46.3	47.7	41.0	43.5				
Coeff. of Var. Soc. Insur. Systems		26.8	30.9	34.0	34.3	30.7	28.3				
Coeff. of Var. NHS-Systems		23.7	22.4	19.8	20.0	21.2					

Notes: a) OECD 23 minus Austria, Ireland, Luxembourg, New Zealand; 1970: Canada: data for the following year; 1975: Canada, Spain: data for the following year; 1980: France, Japan: data for the following year; 1985: France, Japan: data for the previous year; 1990: France, Switzerland: data for the following year; 1995: Canada, France, Norway: data for the previous year; Japan: data for the following year; Belgium: data missing; 2000: Greece, Japan, Portugal, Sweden: data for the previous year; Belgium, Canada, Denmark, France, Germany, Netherlands, Norway, Switzerland: data missing.

b) OECD 23 minus Switzerland; 1970: France, Ireland, Norway: data missing; 1975: Ireland: data missing; 1990: Australia, Norway: data for the previous year; 2000; Australia, Canada, Denmark, Greece, Ireland, Italy, Luxembourg, New Zealand, Portugal: data for the previous year; Belgium, Iceland: data missing.

c) OECD 23 minus Belgium, Iceland, Ireland, Luxembourg, Netherlands, New Zealand, Switzerland; 1970: France, Italy: data missing; 1975: Canada: data for the previous year; 1985: France: data for the previous year; 2000: Australia, Greece, Italy, Portugal: data for the previous year.

Source: OECD Health Data 2002, own calculation