19. SATISFACTION WITH HEALTH CARE SYSTEMS

A Comparison of EU Countries

Jürgen Kohl and Claus Wendt
University of Heidelberg and University of Bremen, Germany

ABSTRACT

Apart from the market and the family, welfare state institutions undoubtedly have a major impact on the living conditions of individuals and social groups. As a matter of fact, welfare state institutions can be differently organized and geared towards different goals (e.g. supplementing vs. replacing markets, equality vs. security, minimum standards vs. optimal standards), and hence are likely to have different consequences. The focus of this article, however, is not directly on measuring the impact of welfare state programs on living conditions, but rather on the subjective perception of social security as well as on the acceptance of welfare state institutions.

"Quality of life" has been conceptualized by Zapf (1984) as the combination of objective living conditions and subjective well-being, thereby distinguishing various welfare constellations. In a similar vein, we regard subjective social security as an element of the quality of life, and ask for the degree of correspondence between particular institutional arrangements of providing social security and citizens' satisfaction with the performance of these institutions. The area of health care policy is taken as an example, but the general methodology could be applied to other fields of social policy as well.

Based on objective health system indicators from OECD sources and Eurobarometer survey data, patterns of satisfaction with health care systems are explored cross-nationally. Welfare state regime types, level of health expenditure and "real" level of health services are taken into account as potential determinants. The findings basically point to the importance of institutional characteristics, almost regardless of the level of health expenditure. Since the analysis allows to evaluate the "success" of national health care systems to find popular satisfaction and approval, it may yield important clues for social policy reform.

INTRODUCTION[1]

"Quality of life" has been conceptualized by Zapf (1984) as the combination of objective living conditions and subjective well-being. By dichotomizing the two dimensions and cross-tabulating them, four types of welfare constellations can be distinguished (table 1).

Wolfgang Glatzer, Susanne von Below, Matthias Stoffregen (eds.), Challenges for Quality of Life in the Contemporary World, 311-331.
© 2004 Kluwer Academic Publishers. Printed in the Netherlands.

Table 1: Individual Welfare Positions

Objective Living Conditions	Subjective Well-being	
	Good	Bad
Good	Well-being	Dissonance
Bad	Adaption	Deprivation

Source: Adapted from Zapf (1984, p. 25).

It is the merit of this conceptualization that it draws our attention to the fact that subjective well-being does not simply "reflect" objective living conditions, but that seemingly inconsistent constellations of high satisfaction despite bad living conditions and dissatisfaction despite good living conditions are also possible.

It is then a matter of empirical analysis to explore how often these paradoxical constellations occur and by which intervening factors they can be explained.

Likewise, when exploring "contributions of the welfare state to the quality of life", one may ask either for the contribution of the welfare state to the improvement of objective living conditions, for instance, by means of income redistribution or by granting access to social services, *or* for the contribution of the welfare state to the subjective well-being of the citizens. Mostly, only questions of the first type are asked and investigated. We do believe, however, that questions of the second type should not be neglected. If we take the goal of "social security" seriously, it denotes not only a state of objective social welfare, but comprises subjective feelings of social security as well. Moreover, it can even be argued that attaining the goal of social security crucially and ultimately requires that social security arrangements and provisions are experienced and evaluated by the citizens as contributing to their subjective well-being (Veenhoven, 2001).

Furthermore, the evaluation and appreciation of existing welfare state arrangements is of crucial importance in a policy context. A certain degree of satisfaction with their performance seems to be a prerequisite that citizens put their trust into the institutions. If it cannot be demonstrated that certain institutions are working fairly well, they will probably not be accepted by the citizens and voters in the long run which, in turn, will give rise to demands for change. Likewise, public acceptance and support seem to be a precondition for the political feasibility of reform proposals.

The issue of legitimation of the welfare state is closely related to the issue of trust in welfare state institutions. Trust in institutions can be generated in two ways: by a normative belief in the guiding principles *("Leitideen")* of an institution, or by the experience of successful performance of existing institutions (table 2).

Table 2: Sources of Trust in Institutions

Trust in the Performance of Institutions	Belief in the Guiding Values *("Leitideen")* of an Institution	
	High	Low
High	A	C
Low	B	D

Source: Adapted from Wendt (2003, p. 65).

With regard to the health care system, such basic principles may be found in the idea that the system provides universal and equal access to medical services in the case of need, and that the costs of the system are collectively and equitably shared, taking into account the individual's ability to pay. The actual performance of the system is experienced and continuously evaluated by the citizens. These experiences may conform and reinforce their beliefs in the principles of the system, or they may jeopardize them.

Trust will be highest and the legitimacy of the institution most stable when both conditions are met simultaneously (A); conversely, there will be a lack of trust when neither condition is met (D), with the likely consequence of institutional destabilization. But one source of trust can also be substituted for the other, to some extent at least. Even if there is initially not much trust in the principles of the system, trust can be built up by the continued experience of well functioning institutions, i.e. when they produce benefits for the citizens (C). On the other hand, even when an institution is not functioning well, e.g. when it faces organizational or financial problems, trust in the institution may still be sustained as long as there is a basic belief in its values and virtues (B).

In our analysis, we try to apply the basic idea of different constellations of objective conditions and subjective perceptions to a comparison of welfare state arrangements in EU countries at the aggregate level.[2] We are asking (and trying to answer) questions like these:

- How are "objective" welfare state arrangements related to subjective satisfaction with these arrangements?
- Are high outlays for health care really a good indicator for a high level of benefits and services?
- Do increased welfare efforts and improved benefits and services really result in higher satisfaction?
- Which specific institutional arrangements are likely to lead to a high level of satisfaction on the part of the citizens?

The analysis of such issues can be understood as a sort of "macro-evaluation" of welfare state arrangements, in this case in terms of citizens' satisfaction with these arrangements.[3] Drawing inferences from the findings of micro-level quality-of-life studies, we are prepared to find also in international comparisons examples of consistent and inconsistent combinations.

Table 3: Objective and Subjective Components of Welfare State Arrangements

Objective Welfare State Arrangements	Level of Subjective Satisfaction	
	High	Low
High	A	C
Low	B	D

Source: Own adaptation.

Such findings may provide important clues for social policy reform. As a null hypothesis, we would expect a positive association between objective levels of welfare effort and subjective satisfaction (type A and D in table 3). But if we find, for example, low degrees of satisfaction despite strong efforts and performance (type C), this may raise doubts about the rationality of the underlying arrangements. If, on the other hand, we find high satisfaction scores despite low levels of expenditure (type B), this may be interpreted as a high degree of cost efficiency in producing welfare or social security.

"Welfare state arrangements" can be operationalized in different ways:

a) in *qualitative* terms as "regime types" guided by certain principles and goals, e.g. the distinction between the Bismarckian and the Beveridgean approach in social protection, or the well-known distinction of "three worlds of welfare capitalism" suggested by Esping-Andersen (1990, 1999). Because most welfare states nowadays represent a mix of programs following different organizational principles, we believe it makes sense to break down such general typologies by policy area in order to reach more specific conclusions. In the field of health policy, for example, one can distinguish between a *social insurance* approach and a *national health service* approach; or in the field of pension policy, between a *basic security* approach (with flat-rate benefits) and an *income security* approach (with earnings-related benefits).[4]

b) in *quantitative* terms as resources allotted to a certain social policy area, e.g. share of health expenditures in GDP. As a rule, one would expect improving objective conditions when (absolute and relative) expenditures are rising. But strictly speaking, such expenditures are only monetary inputs which have to be transformed into *real* outputs in order to make a contribution to citizens' welfare. And it was just because of the inadequacy of monetary indicators to measure "welfare" that, 40 years or so ago, social indicators have been developed, designed to measure "welfare" more directly.

c) Thirdly, one may attempt to measure the "quality" of social policy arrangements in terms of performance indicators such as "doctors per 1,000 inhabitants" or "hospital beds per 1,000 inhabitants". In a second step, it has then to be examined whether quantitative differences in the provision of such services are really perceived and reflected in the subjective satisfaction on the part of the citizens.

In this paper, we will confine ourselves to exploring these issues with regard to health policies although the general methodology could be applied to other fields of social policy as well.

As *objective* indicators of welfare effort and performance, we make use of data collected by OECD (OECD Health Data 2002). At present, OECD data are considered to be the best available data base for comparisons of health care systems (Schieber & Poullier, 1990; Saltman, 1997; NOMESCO, 2001). As *subjective* indicators, we use question items from the Eurobarometer survey 44.3, 1996, on "Health Care Issues and Public Security"[5] (cf. also Mossialos, 1997). Our main dependent variable, subjective satisfaction with the health care system, is aptly captured by question Q.123: "In general, would you say you are very satisfied, fairly satisfied, neither satisfied nor dissatisfied, fairly dissatisfied or very dissatisfied with the way the health care runs in (our country)?". With regard to the two sources of trust in institutions (cf. figure 2), this item relates to the instrumental aspect of the actual performance of institutions, while the normative aspect of belief in the guiding values is better captured by a question asking for the public commitment in the field of health care (see below).[6]

SATISFACTION WITH HEALTH CARE IN DIFFERENT WELFARE STATE REGIME TYPES

In comparative welfare state research, Western welfare states are often clustered into "regime types" according to their ideological stance and broad visions of society. In the probably most influential typology developed by Esping-Andersen, it is assumed, moreover, that the political-ideological tendencies are reflected in the existing institutional arrangements so that different regime types can be identified by certain institutional characteristics.

Table 4: Satisfaction with Health Care Systems by Welfare State Regime Type (1995/96)

Social Democratic		Conservative		Liberal		Rudimentary	
Denmark	90.0						
Finland	86.9						
Netherlands	72.8						
		Luxembourg	71.0				
		Belgium	70.7				
Sweden	67.8						
		Germany	66.0				
		France	65.9				
		Austria	63.3				
				Ireland	48.8		
				UK	47.8		
						Spain	35.7
						Portugal	20.8
						Greece	18.4
						Italy	16.3
Average	79.4	Average	67.4	Average	48.3	Average	22.8

Source: Own calculation based on Eurobarometer 44.3, 1996. The level of satisfaction is defined as the percentage of the population that is very or fairly satisfied with the health care system.

Esping-Andersen (1990, 1999) distinguished "three worlds of welfare capitalism", the liberal, the conservative-corporatist and the social democratic regime type. Since his analysis did not include the Southern European countries (except Italy) and since these countries show some distinct features from the "three worlds", a fourth regime type has been suggested by Leibfried (1992) and called the "rudimentary welfare state" (cf. also Ferrera, 1998).

Classifying EU member states by these four regime types[7] and ranking them by the level of subjective satisfaction with the health care system yields a surprisingly clear pattern (cf. table 4): At the top, we find three social-democratic welfare states with levels of satisfaction of more than 70 %, followed by the countries of the conservative regime type which all show levels of satisfaction of more than 60 %. The United Kingdom and Ireland, the closest approximations to the liberal welfare state type in Western Europe, follow suit with a level of satisfaction of about 50 %, while the rudimentary welfare states of Southern Europe are trailing with levels of satisfaction as low as 20 %. There is an almost perfect fit in the sense that no country of the conservative type exceeds the average level of satisfaction in the social-democratic type, no liberal country exceeds the average level of the conservative type, and no rudimentary welfare state exceeds the average level of the liberal type. While there can be no doubt about the empirical validity of this finding, one should not jump to precipitate conclusions, for the causal mechanism remains unclear: Do the countries of the social-democratic regime type rank so high because they organize health care services in a specific way, or because they give a special

emphasis on health care and spend more, or simply because they are among the wealthiest and most affluent countries in Western Europe?

SATISFACTION BY TYPE OF HEALTH CARE SYSTEM

In order to explore these various possibilities, as a next step we classified the EU member countries according to the organizational type of their health care systems. In principle, we can distinguish between a national health service approach and a social insurance approach. In a national health service approach, as exemplified by the British NHS, health care services are provided free of charge to all citizens, and the bulk of health care expenditure is financed out of general revenues.

Table 5: Satisfaction with Health Care System by Type of System (1995/96)

National Health Service		Social Insurance	
Denmark	90.0		
Finland	86.9		
		Netherlands	72.8
		Luxembourg	71.0
		Belgium	70.7
Sweden	67.8		
		Germany	66.0
		France	65.9
		Austria	63.3
Ireland	48.8		
U.K.	47.8		
Spain	35.7		
Portugal	20.8		
Greece	18.4		
Italy	16.3		
Average	48.1	Average	68.3

Source: Own calculation based on Eurobarometer 44.3, 1996. The level of satisfaction is defined as the percentage of the population that is very or fairly satisfied with the health care system.

In contrast, according to the social insurance approach, the provision of health care benefits is restricted to insured people only, typically the employed labor force who pay their contributions as a percentage of their earnings (family members may be included under this approach, by virtue of "derived entitlements"). The bulk of health care expenditure is, hence, financed by earmarked social security contributions.

A major difference between the two types of organization lies in the fact that in the national health service scheme, the state (government) is directly involved in the provision and delivery of health care services, whereas under a social insurance regime, health care is collectively financed, but mostly delivered by private providers.

When classified according to these types of organization, no systematic advantage is apparent for either type with regard to subjective satisfaction (cf. table 5). At the top, we find two countries with a national health service, followed by a number of "social insurance" type countries with also fairly high levels of subjective satisfaction. But it has to be noted that those six countries which rank lowest in terms of subjective satisfaction are also characterized by some sort of national health service. While the "social insurance" type countries form a fairly homogeneous cluster in terms of satisfaction, the countries with national health services fall apart into two sharply different clusters at the top and at the bottom.

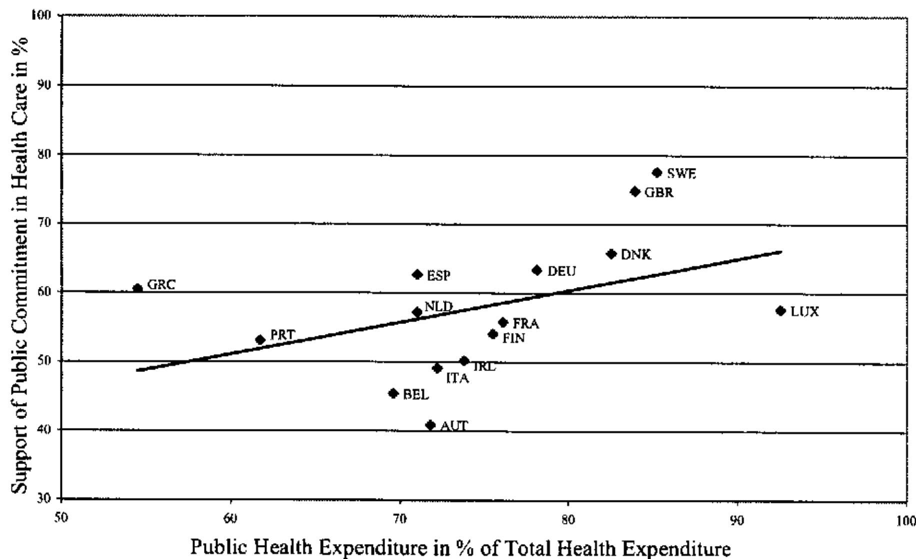
This should caution us against making any generalizing statement about the merits and shortcomings of the national health service approach as such. The level of satisfaction which can be achieved under this form of organization seems to depend largely on additional variables.

When comparing the classification of countries in tables 4 and 5, it becomes evident that the organizational form of a national health service is used by social-democratic, liberal and rudimentary welfare states alike (while the social insurance approach is typical of the conservative welfare states). Therefore, it seems likely that, due to their different ideological stance, the role of the state and the level and quality of services a public health system should provide, will be differently defined within each regime type. For example, the social-democratic welfare states may aim at an extended range of services for all citizens, while the liberal welfare states may want to provide only basic services for all citizens and leave supplementary services to private provision. Likewise, in the liberal welfare states, with their attempt to limit social expenditures, the state-controlled health system will tend to be underfunded, while the "redistributive" social-democratic welfare states will put a higher priority to health services which may result in more generous funding. This consideration may help explain why there is practically no correlation between "type of system" and satisfaction, although there is a strong association with "welfare state regime type".

Satisfaction with the health care system then depends on whether the institutionalized priorities of the existing system are in line with the preferences of the citizens, or not. If they are, i.e. if the citizens by and large get what they want – be it a health care system with basic services only or with extended services – satisfaction will result. But if there is a conflict between the demands of the citizens and the scope and character of the existing system, dissatisfaction will probably emerge.

In order to examine this hypothesis, we used the following question item: "The government should only provide everyone with essential services such as care for serious diseases and encourage people to provide for themselves in other respects (agree strongly, agree slightly, neither agree nor disagree, disagree slightly, disagree strongly)" and recoded disagreement with this statement as support for an extended role of the state with regard to health care. We then correlated these scores with the share of public financing of (total) health expenditures (as an indicator of the state's institutionalized influence in the health sector) (cf. figure 1).

Figure 1: Share of Public Health Expenditure and Support for Public Commitment in the Field of Health Care (1995/96)



Source: Own calculation based on OECD Health Data 2002 and Eurobarometer 44.3, 1996.
Correlation: r=+0.43.

One can see quite clearly that the general tendency is a correspondence between *public support* for an extended role of the state in providing health care and the *actual degree of state involvement* in the health system. In countries with a high share of public health expenditure, the population also supports a high public commitment in the field of health care. From this perspective, the strong support for state commitment in Sweden, Great Britain, Denmark, and Germany, but also in Spain and Greece, can be interpreted as a high level of trust in the government's ability to guarantee security and equality (Flora, Alber & Kohl, 1977) by providing comprehensive health care services. This is the case despite the fact that in Great Britain, Spain and Greece (and some more countries) people's satisfaction with their *currently existing* health care systems is rather low.[8] On the other hand, especially in Austria, but as well in Belgium or Luxembourg, the government would receive popular support when *reducing* state involvement and increasing private expenditure for health care.

SATISFACTION BY LEVEL OF EXPENDITURE

When it comes to analyzing the impact of health care expenditures on satisfaction with health care systems, one should distinguish between absolute and relative expenditure levels.

Table 6: Indicators of Health Expenditure (1995/96)

	Total Health Expenditure in % of GDP	Total Health Expenditure in US$ per capita	Public in % of Total Health Expenditure	Support for the Increase of Health Care Costs in %
Austria	8.6	1,831	70.5	16.4
Belgium	8.7	1,896	88.8	39.6
Denmark	8.2	1,882	82.4	34.8
Finland	7.5	1,415	75.9	32.3
France	9.6	1,980	76.3	30.9
Germany	10.2	2,184	78.3	25.7
Greece	8.9	1,131	58.7	86.8
Ireland	7.2	1,300	72.5	71.6
Italy	7.4	1,486	67.8	52.0
Luxembourg	6.4	2,122	92.8	34.3
Netherlands	8.4	1,787	67.7	49.6
Portugal	8.3	1,146	66.7	79.2
Spain	7.7	1,184	78.5	53.9
Sweden	8.1	1,622	84.8	57.5
United Kingdom	7.0	1,315	83.7	81.9
EU Average	8.1	1,619	76.4	49.8

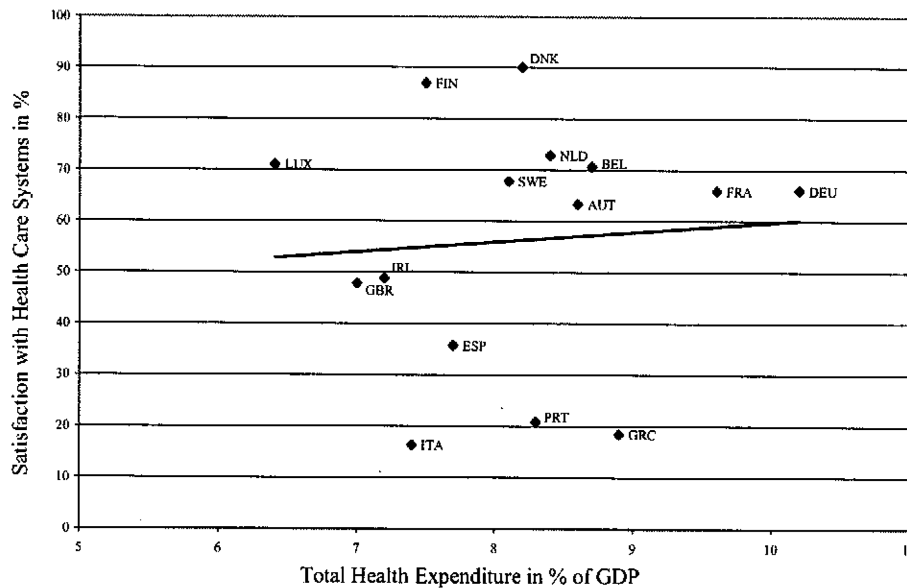
Sources: OECD Health Data 2002; Eurobarometer 44.3, 1996. Total health expenditure comprises public *and* private health expenditure.

Relative expenditure levels, measured as a percentage of GDP, are an indicator of the relative priority a society is willing to attach to health care on the current level of economic development and wealth, i.e. *under given resource constraints. Absolute* expenditure levels have to be converted into a common currency, using purchasing power parities (PPP) as exchange rates. They reflect both, the general economic wealth of a country *and* the social-political priority given to health care (table 6).

In terms of *relative* expenditures, we find no correlation between the level of health expenditure and subjective satisfaction with the health care system (cf. figure 2). Very diverse country profiles stand out: Portugal and Greece spend "above average" shares of GDP for health care, but citizens' satisfaction with their health care systems remains at very low levels of about 20 %. Italy and Spain do hardly any better. By contrast, the systems of Denmark and Finland are able to generate very high levels of satisfaction (of about 90 %) with similar shares of GDP. Likewise, the Danish and the Finnish system attain also higher levels of satisfaction than the French and the German system which are much more expensive. The German health system is undoubtedly the most expensive one in terms of relative as well as absolute expenditures; the level of satisfaction it generates is certainly above the EU average, but falls short of what one would expect on the basis of its expenditure level. We hypothesize that such striking differences as between Denmark and

Finland on the one side and France and Germany on the other (which are on a similar level of economic development) can only be explained by taking into account the different organizational forms of providing health care. We will come back to this point at a later stage of our argumentation.

Figure 2: Total Health Expenditure (in % of GDP) and Satisfaction with Health Care Systems (1995/96)

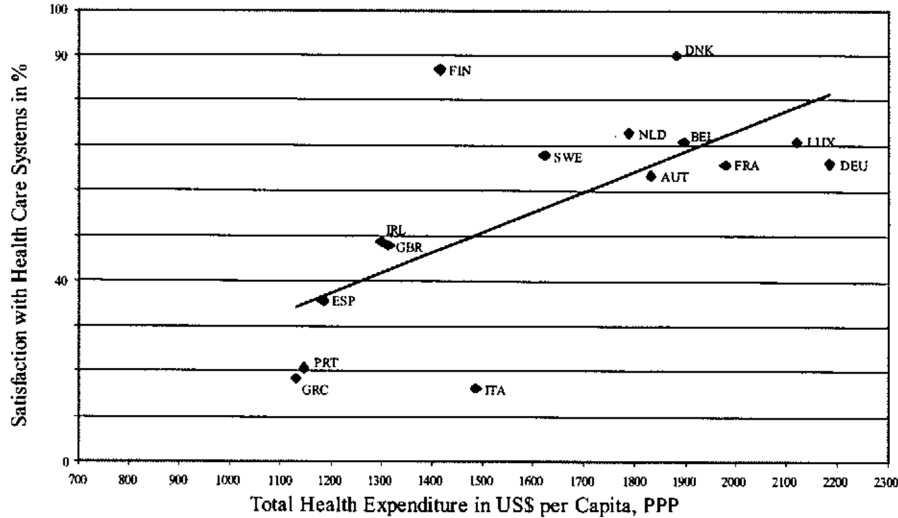


Source: Own calculation based on OECD Health Data 2002 and Eurobarometer 44.3, 1996. Correlation: r=+0.08.

In contrast to *relative* expenditures, *absolute* health expenditures, measured in US$ per capita, show a correlation of r=+0.68 with subjective satisfaction (cf. figure 3). It seems that in welfare states allocating high absolute amounts of resources to health care, citizens are, on average, more satisfied with the performance of these systems. It also becomes evident that the rudimentary welfare states of Southern Europe, despite the fact that they spend 7-9 % of their GDP on health care, are only able to raise limited absolute amounts of resources, due to their lower level of economic development. These rudimentary welfare states with their low-cost health care systems, consequently, meet with a rather low approval, whereas the above average expenditure levels in the conservative welfare states result in higher levels of satisfaction of about 70 %. The conservative welfare states are all among the "big spenders", but exhibit lower levels of satisfaction than one would expect taking the regression line as a reference line. But especially noteworthy are the scores of about 90 % in Denmark and Finland, although their health expenditure in US$ per capita is lower than the average of the conservative welfare states – in Finland even below

the EU average. This can be interpreted as a high degree of cost efficiency in the provision of health care in both countries.

Figure 3: Total Health Expenditure (in US$ per capita) and Satisfaction with Health Care Systems (1995/96)



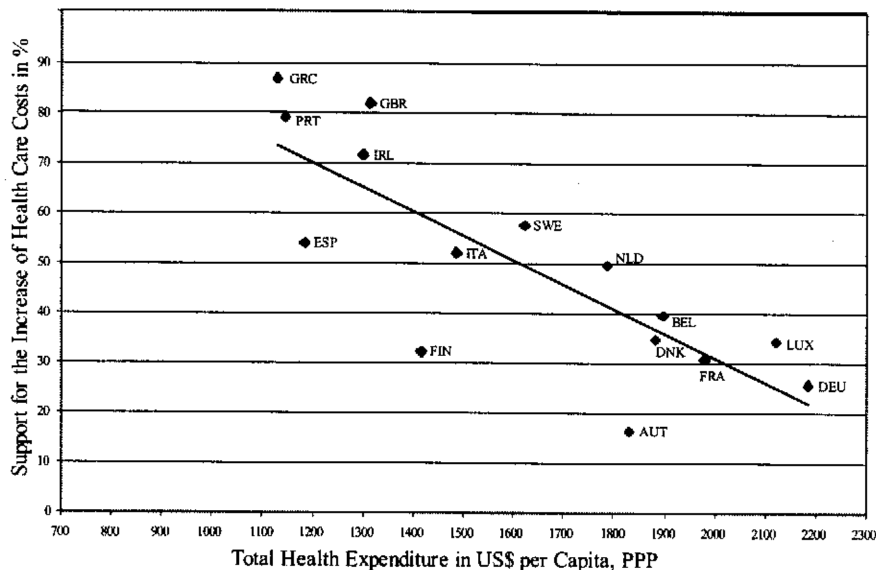
Source: Own calculation based on OECD Health Data 2002 and Eurobarometer 44.3, 1996.
Correlation: r=+0.68.

Thus, with regard to expenditure levels, we can conclude that absolute input of resources (health expenditures) certainly matters in improving people's satisfaction, but the better performance of the social-democratic welfare states and the poorer performance of the rudimentary welfare states still hold – even if we control for the absolute level of expenditures.

When focusing on "trust in health care institutions", the assessment of future developments is of paramount importance. A suitable indicator for trust in the future viability of a system seems to be whether people are willing to accept or even support future increases in health expenditures. This is captured by the question: "Do you think that the (national) government should spend more, the same amount as today or less on health care?" Figure 4 shows that support for expenditure increases the lower the higher health care costs (in US$ per capita) already are.

The strong negative correlation has an important political implication: While higher absolute expenditures, by and large, are associated with higher levels of satisfaction (cf. figure 4), a strategy of further increasing expenditures in order to improve satisfaction is blocked by strong tax resistance on the part of the citizens, at least in the high-spending countries. In these countries, the only feasible option seems to be to increase efficiency by improved organization of services,[1] without further expenditure increases. When taking into account that, due to demographic ageing, there will be a need for further increases in health expenditure in all EU countries, the low support for such a development in Austria and Germany indicates the potential for future conflicts about this issue in both countries.

Figure 4: Absolute Level of Health Expenditure and Support for the Increase of Health Care Costs (1995/96)



Source: Own calculation based on OECD Health Data 2002 and Eurobarometer 44.3, 1996.
Correlation: r=-0.80.

At the other end of the scale, we find relatively high support (of more than 70 %) for such a strategy in the low-cost health care systems of Greece and Portugal. Here, higher investments in the field of health care are accepted as necessary in order to overcome the perceived deficits of the existing health systems. Not only in these rudimentary systems, but in the early institutionalized national health systems of Great Britain and Ireland as well, there seems to be an awareness among citizens that these health systems are currently underfunded. Higher expenditure, because of demographic changes as well as for health service improvements, would therefore be supported. On the other hand, in Austria, Germany, France, and presumably Luxembourg and Denmark the limits for raising expenditures have already been reached. The consequence of further expenditure increases without improvements of service quality here would probably be a loss of trust followed by institutional destabilization.

SATISFACTION BY LEVEL OF HEALTH SERVICES

While in most countries cost containment of health *expenditure* is the main focus of reforms, the production side of health *services* is often neglected in the health policy debate – probably due to the difficulties of measuring the level and/or quality of health services. Jens Alber (1988), for example, used as indicators for the "quality of health care" the density of medical doctors and hospital beds in OECD countries.

Compared with these input indicators, the "quality of health service index", developed by Olli Kangas (1994), is more complex and takes into account the earnings replacement ratio of sickness benefits, the coverage rates of health care systems, the number of waiting days, and the length of the contribution period required for the access to benefits. For a comparison of the *level* of health care services, however, further or, more precisely, different health care indicators have to be included.

We selected two indicators from the in-patient health care sector (total hospital employment and hospital beds), two indicators from the out-patient health care sector (total out-patient health employment and general practitioners), one indicator from the dental health care sector (dentists) and one indicator from the pharmaceutical health care sector (pharmacists).

Table 7: Indicators of Health Care Services (per 1000 Population) (1995)

	In-Patient Care		Out-Patient Care		Dental Health Care	Pharm. Health Care	Index of Health Care Services
	Total Hospital Employm.	In-Patient Beds	Total Out-Patient Employm.	General Practitioners	Dentists	Pharmacists	% of EU-Average
AUT	15.4	6.6	14.4	1.2	0.5	0.5	117.0
BEL	11.5	4.7	9.6	1.5	0.7	1.4	127.3
DNK	15.9	3.6	7.3	0.6	0.9	0.5	92.5
FIN	13.0	4.0	25.6	1.4	0.9	1.4	158.4
FRA	17.8	4.6	8.6	1.5	0.7	1.0	123.9
DEU	12.1	6.9	16.4	1.1	0.7	0.5	121.2
GRC	8.9	4.0	5.2	0.8	1.0	0.8	94.5
IRL	12.4	3.1	6.0	0.5	0.4	0.7	73.3
ITA	11.2	5.5	7.7	0.9	0.5	1.0	101.1
LUX	11.1	5.7	1.2	0.8	0.5	0.7	81.6
NLD	15.4	3.8	8.4	0.4	0.5	0.2	73.6
PRT	9.1	3.3	2.9	0.6	0.3	0.7	63.8
ESP	9.4	3.0	4.5	0.8	0.4	0.6	69.5
SWE	24.4	3.0	14.6	0.5	1.0	0.7	118.6
GBR	21.1	2.5	7.5	0.6	0.4	0.6	83.7
EU	14.0	4.3	9.3	0.9	0.6	0.8	100.0

Source: Own calculation based on OECD Health Data 2002.

While indicators of health care provision like the ones we used are sometimes considered as objective indicators of health care quality, we would like to insist upon the difference between "real input" and "real output". In our view, the number of

doctors and other medical personnel and the number of medical facilities are only the "production factors" which may be combined in various ways to produce services which meet the needs and demands of the citizens (table 7).

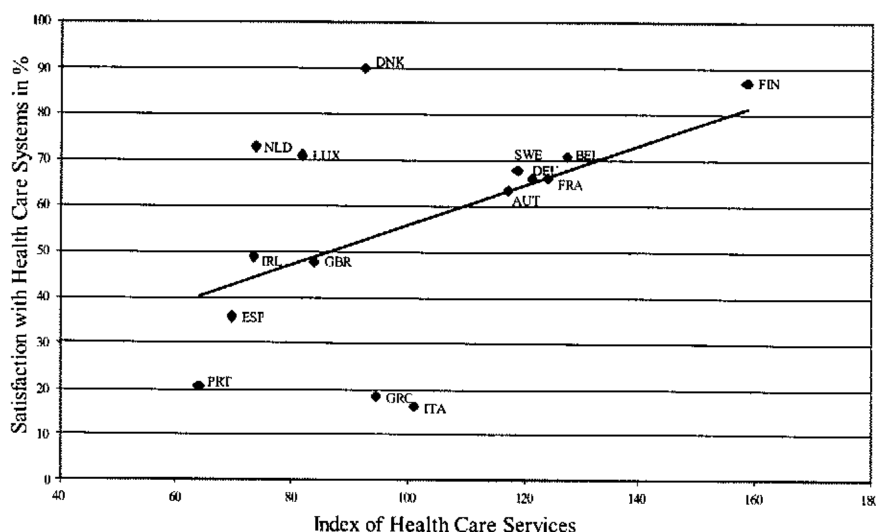
We aggregated these indicators into an index of health care services in the following way:

First, the raw values for the various indicators, expressed per 1,000 of population, were standardized and recalculated as percentages of the EU average. Our index of health care services was then calculated as the average value for all six health service indicators (where all indicators were weighted equally, thus approximating the relative importance of the various health care sectors).

For Great Britain, for example, the number of total hospital employment is above EU average, but all the other indicators are below EU average. The total index of health care services is 83.7 and therefore below EU average. Finally, we correlated this index with the level of satisfaction, as explained before (cf. figure 5).

Not surprisingly, the higher the index of health care services, the higher is the level of satisfaction with the health care system. The correlation is r=+0.50. However, it is somewhat surprising that this correlation is lower than the one between absolute expenditure levels and level of satisfaction (r=+0.68) because one would expect that the availability of health care facilities is closer to the average citizen's experience and, therefore, has a more direct impact on his evaluation of the health care system.

Figure 5: Index of Health Care Services and Satisfaction with Health Care Systems (1995/96)



Source: Own calculation based on OECD Health Data 2002 and Eurobarometer 44.3, 1996. Correlation: r=+0.50.

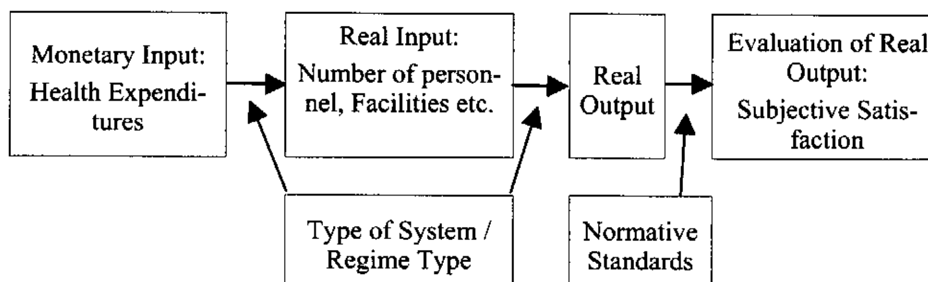
Finland can be taken as an outstanding example that it is possible to provide a high level of services that contributes to the subjective well-being of the citizens with

below-average health expenditure. Most health insurance systems provide above-average health services as well – but at much higher (relative and absolute) costs. The Danish system, on the other hand, provides health care services that are at EU average – but enjoys the highest support of its population. As mentioned before, further organizational information about the respective health care systems is necessary to better understand which specific welfare arrangements result in a high level of subjective well-being. In the case of Denmark, for example, we would argue that the close cooperation between the health care sector and the social service sector relieves the health care system in financial terms and provides flexible services according to the needs and individual preferences of patients (for example home care instead of hospital care). The close cooperation is strengthened by the organizational structure of the Danish health care system, where health services are mainly financed and delivered at the local level with direct access of citizens and patients, respectively, to health care providers as well as to politicians to be held responsible for health care reforms. Transparency of the organizational structure and decision-making process and participation chances are likely to increase the citizens' support of the health care system (cf. Wendt, 2003, p. 277ff.). Likewise, further information on the institutional structure would be necessary to explain the departure from the general trend, for example in Italy or Greece.

DISCUSSION

Finally, we return to the issues raised at the beginning. The production process of health services can be schematically outlined in the following way (figure 6):

Figure 6: The "Production Process" of Health Care Services



Source: Own Adaptation.

Health expenditures can be considered the *monetary input* into the system. These expenditures are used to establish a specific organizational structure with doctors, hospitals, and other medical personnel and facilities. This constitutes the *real input* to the system. The real inputs of resources are then used to produce and deliver a range of health-related services which constitute the *real outputs* of the system.

Unfortunately, our database did not provide good indicators to measure the quality of services directly (real outputs). Instead, we have focused on the subjective dimension of social security, on citizens' satisfaction with the health care system which can be considered as the *subjective evaluation of real outputs*.

Hence, we assumed that, as a rule, good quality of services should lead to high levels of satisfaction. Low satisfaction despite high expenditures, on the other hand, would then indicate either that the input resources have not been efficiently converted into health services or that the services provided do not match the needs of the citizens.

Although it seems reasonable to assume that, in general, health expenditures, the provision of health care services and subjective satisfaction with the health care system are positively correlated with each other, we also take into account that this correlation is far from perfect and that different constellations of objective and subjective measures of health care may emerge.

This assumption is based on the following reasoning: The transformation of monetary into real inputs as well as the transformation of real inputs into real outputs is *mediated by the prevailing institutional structures*. These comprise the political-institutional structure which provides a framework for political decision-making about the priorities of goals and the adequacy of instruments to achieve these goals, as well as the institutional arrangements of organizing and delivering health services. In the end, political and administrative decision-making processes may lead to a more or less efficient use of resources.

The second intervening variable are the normative expectations of citizens of what constitutes a good or optimal health care system. For the degree of satisfaction which people express derives from a subjective evaluation of the health care system, in which the actual performance of the system is compared with some pre-conceived notion of how it *should* be organized which reflects the value preferences of the citizens. These may or may not be in accordance with the institutionalized priorities of the system.

We have found that there is an almost perfect fit between welfare state regime types and citizens' satisfaction with the performance of health care systems, but that there is no systematic difference with regard to the organizational form of how health care is provided: whether it is organized as a national health service or as a (branch of a) social insurance system.

In further explorations, we found that the level of citizens' satisfaction is practically unrelated to the *relative* level of health expenditure, as measured by the share of GDP spent on health care. But there is a fairly strong correlation with the *absolute* level of health expenditure, as measured in US$ per head of population (r=+0.68). This leads us to conclude that the general wealth of a country is a more important factor than the specific efforts a country undertakes when it raises the share of GDP spent on health care, and that the impact of the relative level of expenditures (welfare effort) is crucially mediated by the welfare state regime type.

The economically more advanced countries of the European Union are able to spend more on health in absolute terms, and this leads to better satisfaction with the performance of the health care system. However, there is a counterbalancing factor which sets limits to a strategy of generous spending for health care in order to increase popular satisfaction: people in "big spender" countries are much less willing to agree to further increases in health care costs than people in those countries with a low absolute level of spending (r=-0.80). There is also a moderately strong correlation between the index of health care services (which is intended to measure the "real input") and the level of subjective satisfaction (r=+0.50).

In addition to the general tendencies expressed in regression lines and correlation coefficients, a closer inspection by countries yields additional insights. Making use of the various constellations of objective health care arrangements and subjective satisfaction with the health system, referred to in the beginning (cf. table 3), we are able to identify countries which conform to the general tendencies described above (as expressed in the regression lines) and those countries which deviate from the general pattern in a positive or negative sense.

For this purpose, we have cross-classified countries in two dimensions according to whether they fall above or below the EU average in the respective dimensions (table 8).

We are arguing that countries in box B realize *superior* welfare constellations because they are able to combine "above average" satisfaction scores with "below average" health expenditures (monetary inputs) or "below average" health care provision indicators (real inputs), respectively. Conversely, countries in box C represent *inferior* welfare constellations because they reach "below average" satisfaction scores despite "above average" monetary or real inputs of resources.

Table 8: Relative Level of Health Expenditures and Subjective Satisfaction with Health Care System (1995/96)

Relative Level of Health Expenditures	Subjective Satisfaction with Health Care System					
	Above Average (>56 %)			Below Average (<56 %)		
Above Average (>8.2 %)	Germany	10.2	66.0	Greece	8.9	18.4
	France	9.6	65.9	Portugal	8.3	20.8
	Belgium	8.7	70.7			
	Austria	8.6	63.3			
	Netherlands	8.4	72.8			
Below Average (<8.2 %)	Denmark	8.2	90.0	Spain	7.7	35.7
	Sweden	8.1	67.8	Italy	7.4	16.3
	Finland	7.5	86.9	Ireland	7.2	48.8
	Luxembourg	6.4	71.0	United Kingdom	7.0	47.8

Source: Own calculation based on Eurobarometer 44.3, 1996, and on OECD Health Data 2002.

In terms of the relative expenditure level, i.e. the welfare efforts countries undertake according to their economic position, Greece and Portugal fall into this "inefficient" pattern, but Spain and Italy hardly do any better. Subjective satisfaction with the health system is lowest in these countries although they spend about the same share of GDP for health care as do the countries in box B: Denmark, Sweden, Finland, and Luxembourg.

With regard to the index of health care services, a similar picture emerges (cf. table 9). 11 out of 15 countries conform to the general tendency. There is only one country in the "inefficiency" box (C), namely Italy which has the lowest satisfaction score although the index for health service provision is very close to the European average. Greece is also very similar with regard to the dissatisfaction of the citizens,

but its index score for health service provision is slightly below the EU average so it has to be classified in the "consistency" box (D).

But three countries excel with "above average" satisfaction despite the fact that their index score for health service provision is "below average": Denmark, Luxembourg and the Netherlands. We suppose that these countries are able to organize their health systems in an efficient way so that they produce good quality care with limited real resource input, and that this is reflected in high popular satisfaction.

Two of these countries, Denmark and Luxembourg, have also been in the "efficiency" box (B) in table 8. The remaining two countries in that box in table 8, Sweden and Finland, are good examples that it is possible to provide "above average" health care service structures with relatively limited monetary resource inputs, and that this performance is finally honored by high citizens' satisfaction.

Table 9: Index of Health Care Services and Subjective Satisfaction with Health Care System (1995/96)

Index of Health Care Services	Subjective Satisfaction with Health Care System					
	Above Average (>56 %)			Below Average (<56 %)		
Above Average (>100)	Finland	158	86.9	Italy	101	16.3
	Belgium	127	70.7			
	France	123	65.9			
	Germany	121	66.0			
	Sweden	118	67.8			
	Austria	117	63.3			
Below Average (<100)	Denmark	92	90.0	Greece	94	18.4
	Luxembourg	81	71.0	United Kingdom	83	47.8
	Netherlands	73	72.8	Ireland	73	48.8
				Spain	69	35.7
				Portugal	63	20.8

Source: Own calculation based on Eurobarometer 44.3, 1996, and on OECD Health Data 2002 (cf. table 7).

The logic of the inquiry suggests that when it comes to emulate models for reform, one should have a closer look at those countries which show a superior performance with regard to the goals to be achieved *("best practices")*. When the goal is "high satisfaction of the citizens with their health care systems", our analysis has identified the following countries which should be scrutinized in greater detail: Denmark, Finland, the Netherlands, Sweden, and Luxembourg.

Since four of these five countries fall into the social-democratic welfare state regime type, our first impression from the beginning (cf. table 4) appears to be corroborated: The fact that these countries are at the top with regard to citizens' satisfaction with their health care systems cannot simply be attributed to "disruptive factors" (like level of economic development), but appears to be rooted in institutional characteristics specific to this regime type.

NOTES

1 The authors gratefully acknowledge the critical and helpful comments by Roland Eisen and Andreas Hoff.

2 A similar macro-level analysis of the constellations of objective living conditions and subjective well-being in EU member countries has been undertaken by Noll (1997).

3 For such a macro-evaluation of welfare state regime types with regard to objective performance indicators, cf. Kohl (1999).

4 Note, however, that any such type of scheme may be institutionalized providing more or less generous benefits and resulting in higher or lower aggregate expenditures. Empirical analysis then has to clarify whether subjective satisfaction with welfare arrangements is more affected by the type of schemes and services or by the level of benefits and services.

5 Data for the Eurobarometer data set 44.3 were collected from February to April 1996. The survey includes about 1,000 persons above the age of 14 in each country.

6 Following a different conceptualization developed by Roller (1992), the first item relates to the output dimension (intended consequences), the second one to the goal dimension (extent of public responsibility) of policies.

7 In our classification, we largely follow the clustering of welfare states suggested by Esping-Andersen (1990, Tables 2.2 and 3.3, pp. 52 and 74).

8 This can be taken as evidence that the two sources of trust in institutions depicted in table 2 may not always coincide.

REFERENCES

Alber, J. (1988): Die Gesundheitssysteme der OECD-Länder im Vergleich. M. G. Schmidt (ed.): Staatstätigkeit. International und historisch vergleichende Analysen. PVS, Sonderheft 19/1988, Opladen: Westdeutscher Verlag, 116-50.

Esping-Andersen, G. (1990): The Three Worlds of Welfare Capitalism, Cambridge: Polity Press.

Esping-Andersen, G. (1999): Social Foundations of Postindustrial Economies, Oxford: Oxford University Press.

Eurobarometer (1996): 44.3: Health Care Issues and Public Security. February – April 1996, Cologne: Central Archive for Empirical Social Research.

Ferrera, M. (1998): The Four 'Social Europes': Between Universalism and Selectivity. M. Rhodes & Y. Mény (eds.): The Future of European Welfare: A New Social Contract?, London: Macmillan, 79-96.

Flora, P., J. Alber & J. Kohl (1977): Zur Entwicklung der westeuropäischen Wohlfahrtsstaaten. Politische Vierteljahresschrift 18, 707-72.

Kangas, O. (1994): The Politics of Social Security: On Regressions, Qualitative Comparisons, and Cluster Analysis. T. Janoski & A. M. Hicks (eds.): The Comparative Political Economy of the Welfare State, Cambridge: Cambridge University Press, 346-64.

Kohl, J. (1999): Leistungsprofile wohlfahrtsstaatlicher Regimetypen. P. Flora & H.-H. Noll (eds.): Sozialberichterstattung und Sozialstaatsbeobachtung, Frankfurt/Main: Campus, 111-39.

Leibfried, S. (1992): Towards a European Welfare State? On Integrating Poverty Regimes Into the European Community. Z. Ferge & J. E. Kolberg (eds.): Social Policy in a Changing Europe, Frankfurt/Main: Campus, 245-78.

Mossialos, E. (1997): Citizens' Views on Health Care Systems in the 15 Member States of the European Union. Health Economics 6, 109-16.

Noll, H.-H. (1997): Wohlstand, Lebensqualität und Wohlbefinden in den Ländern der Europäischen Union. S. Hradil & S. Immerfall (eds.): Die westeuropäischen Gesellschaften im Vergleich, Opladen: Leske & Budrich, 431-73.

NOMESCO (2001): Health Statistics in the Nordic Countries, Copenhagen: NOMESCO.

OECD (2002): OECD Health Data 2002. Comparative Analysis of 29 Countries, Paris: OECD.

Roller, E. (1992): Einstellungen der Bürger zum Wohlfahrtsstaat der Bundesrepublik Deutschland, Opladen: Westdeutscher Verlag.

Saltman, R. B. (1997): The Context of Health Reform in the United Kingdom, Sweden, Germany, and the United States. Health Policy 41, 9-26.

Schieber, G. J. & J.-P. Poullier (1990): Overview of International Comparisons of Health Care Expenditure. OECD: Health Care Systems in Transition. The Search for Efficiency. OECD Social Policy Studies No. 7, Paris: OECD, 9-15.

Veenhoven, R. (2001): Why Social Policy Needs Subjective Social Indicators. WZB Working Papers FS III 01 – 404, Berlin: WZB.

Wendt, C. (2003): Krankenversicherung oder Gesundheitsversorgung? Gesundheitssysteme im Vergleich, Wiesbaden: Westdeutscher Verlag.

Zapf, W. (1984): Individuelle Wohlfahrt: Lebensbedingungen und wahrgenommene Lebensqualität. W. Glatzer & W. Zapf (eds.): Lebensqualität in der Bundesrepublik, Frankfurt/Main: Campus, 13-26.