Stefan Sohn

# Networking Effects in the German Health Care System

**Abstract**

From the perspective of institutional economics the development and the present status of the German health care system is analyzed to derive implications for further changes that have to be made on different organizational levels: The organic institutional growth has shaped the German health care system the way it is organized at the moment. Though institutions reduce transaction costs they do not induce efficient structures. Especially the German institutional structures show low adaptive efficiency. At the turning point of unaffordable health care costs in the German statutory health insurance the needed networking effects come up very slowly because of high institutional persistence. Here, an institutional change is necessary to initiate and develop networking activities between health care providers in order to perform health care with higher efficiency. As governmental arrangement beyond market or hierarchy the clan could be seen as a feasible structure of successful provider networks with trust as one of the main coordinating factors.

Author:

Stefan Sohn

Chair of Health Care Management

University Erlangen-Nuremberg

Lange Gasse 20

90403 Nuremberg

Germany

Tel.: ++49 911 5302 385

Fax: ++49 911 5302 285

e-mail: stefan.sohn@wiso.uni-erlangen.de

## Introduction

In 40 years of development of the German health care system after World War II till the end of the 1980s there was a continuing growth of the economy as a whole. Because of sufficient spending to the health care sectors (e.g. out-patient, in-patient, rehabilitation, home care) they grew in a similar magnitude. The special character of this economic field with its non-existing market mechanisms and its especially in Germany more pronounced sectoral structure led to a strong horizontal growth. Every sector developed independently from each other its own institutions and incentive schemes. Due to the lack of orientation towards efficiency within these incentive schemes the growth of each sector took place in a likewise organic way. They grew like the branches of a tree with less guidance towards the optimization of the economic and social value added. The main duty of the statutory health insurance (SHI) during this time was the administration and dissemination of money to the health care providers as soon as possible and without a greater demand of efficiency.

The problem at that point is that the output of these horizontally developed structures which are still persisting is produced in a vertical process through the different organizations of health care providers (primary and secondary out-patient practices, out-patient and in-patient hospital services, out-patient and in-patient rehabilitation services, etc.). According to the tree image the core process would take place along the outer leaves of the tree. In this vertical treatment process the organizational interfaces at the transition points from one sector to another were undersized gauged against the objective of efficiency of the overall process. A networking between participants of the health care system occurred only on a very limited basis due to lacking incentives. The incentive schemes supported partially even treatment guidance contraindicated to overall efficiency. When optimization took place it was primarily incited by the intrinsic motivation of the participating individuals and often against extrinsic financial and other factors.

The health care reforms in Germany since the end of the 1980ies have stopped or at least slowed down the further growth of the different branches with a strict budget policy. An increasing cost pressure in the different sectors followed, but the financial and organizational structure and orientation remained till the year 2000. The Gesundheitsreformgesetz 2000 (GRG 2000) created the possibility to work and cooperate in networking entities in a vertical manner. Since it was only a possibility and not an obligation there was very few development of networking activity, constrained also by the administering institutions of the “old” system fearing their decline of influence.

In 2003 these constraints were lessened in the GKV-Modernisierungsgesetz (GMG 2003) and an upcoming activity in networking could be noticed whereas the long socialization in the horizontal structured system induces a long period to change mind and behavior to a more vertical and a more networking perspective. With this paradigm change not only all kinds of health care providers are concerned but also the paying authorities of the SHI, the pharmaceutical industry and last but not least, the patients have to perform a reorientation process towards the new perspective.

Additional to this basic condition miscellaneous factors appear during the effort to implement network structures. The complexity of contracting procedures, the fragmentation of the paying authorities, the heterogeneity of IT- and Communication-Infrastructure are posing challenges that had to be resolved step by step with appropriate strategies.

**Health care from the perspective of institutional economics**

What happened in the development of the German health care system was the implementation of an organizational framework for the medical needs of the population. In general the deci-

sion about a health care system has to be made if health care should be provided by governmental institutions like the National Health Service (NHS) in the United Kingdom or by private organizations (insurances, physicians, hospitals, etc.) like in the U.S. health care system.

Different approaches exist to decide this question. The perspective of institutional economics at that point would be according to Williamson to find the right point between hierarchy and market, where the total of production and transaction costs would be lowest. Most authors agree that a pure market solution would not lead to a sufficient delivery of health care provision in an economy for several reasons. The main point is the distribution of the three main attributes of a customer in a normal market situation: deciding, paying and consuming (see Fig. 1) to different participants. Only the last attribute remains at the customer whereas the other two, which are the most important ones from the economic perspective, are fulfilled by the health care providers and the insurances.

Insert Figure 1 here

Additionally in the health care surrounding a lot of information asymmetries exist between these three parties. This leads to different effects like moral hazard and adverse selection, because one party has specific informational advantages over another. The patient knows a lot more about his health behavior and his compliance towards the physician’s advice than the physician. On the other side the physician has got better information about the disease of the patient and the possibilities to diagnose and treat and charge it. A double moral hazard could take place due to information asymmetries:

- the patients continue to consume medical and other services as long as the additional costs they have to bear are less than the value of the consumed service and

- the physicians have the incentive to diagnose and treat by all chargeable means as long as he can justify it against his patient.

This opportunistic behavior increases uncertainty and therefore inefficiency. To control and suppress opportunistic behavior special efforts and mechanisms are needed, which would then increase transaction costs.

As well as different forms of uncertainty which can be found in the health care industry, e. g. external uncertainty on the macro level concerning national health care policies, there are other reasons why health care is nothing that can be managed only through market mechanisms. According to Williamson it could be said that the more the attributes uncertainty, high specifity and low measurability of goods or services involved are given, the less market mechanisms could induce efficiency and an organizational solution towards hierarchy should be chosen (Williamson 1985). So what about these attributes in the health care industry?

Already described above is the high uncertainty because of existing information asymmetries and the possible opportunistic behavior at different levels and relations.

The specifity of the provided services depends on several factors and has to be differentiated by the various parts of a health care system in which every patient is treated individually at any point of the system and additionally is going through on individual pathways. Preker stated the specifity for health care by analyzing the two factors contestability and measurability. High contestability is according to him the existence of low barriers to entry and exit the market. Subsequently it would be possible to leave the market without losing any investments (Preker 2000, 782).

Low contestability includes on the other hand an asset specifity where for health care the special assets expertise and reputation are included. These can also be built up by investments and raise market entry barriers for other potential providers. In the same way they build up market exit barriers for the investors, because they could not transfer a regional expertise or reputation easily elsewhere without the risk of sunk costs. Also the investments in high-tech diagnostics and inpatient care are a high barrier and lead to lower contestability. Higher contestability is found for non clinical activities like routine diagnostics and laundry and catering (see Tab. 1).

Insert Table 1 here

Measurability is the possibility and ease of stating the results of the production or service process by measuring medical outcome compared to the needed input factors. Due to the high complexity of medical processes and the high difficulty to find meaningful outcome measures the measurability in most parts of a health care system is very low. Especially in- and outpatient medical care and nursing as well as public health interventions and intersectoral action are assumed to be very difficult to measure (Preker 2000, 783).

This leads us to the three attributes for the decision “market-or-hierarchy” for different parts of a health care system at different levels. The objective of the health policy of a nation should therefore be to shape a legal context where the parts of a health care system with a higher measurability and contestability and lower uncertainty could efficiently be managed by market mechanisms. Depending on the level of the stated attributes there has to be more or less regulation and contracting, the higher the measurability and contestability are for a certain service the less regulation is needed and by means of information disclosure some of

them could be completely market driven. Only policy-making and monitoring should be organized hierarchically in this approach (Preker 2000, 786).

Even in the NHS, one of the most hierarchical organized health care systems this tendency is to be seen. In the UK the founding of regional "NHS-Trusts" took place in the 1990ies. These NHS-Trusts are allowed to install a certain competition by purchasing different services and goods for the regional population under more or less market conditions.

At this point of the analysis the idea arose if there are other governmental arrangements than market, hierarchy or hybrid forms based only on regulation and contracting. One approach in literature to an arrangement for situations where low measurability (ambiguous performance evaluation, the lower left corner of table 1) in a complex transition process is given is the one described by Ouchi. He proposed the clan as governing relationship beyond market and hierarchy in these situations. He described a clan as based on socialization and shared norms and values. This leads to a high goal congruency between its members, which will help to manage transactions very efficiently with low transaction costs. He argued that this happens because the shared values and the given goal congruency increases trust between the members and decreases opportunism (Ouchi 1980).

Whether this approach is applicable in health care or not, will be assessed in the context of the German health care system in the following sections.

**The German health care policy**

The German health policy did not install a governmental health care service like the UK. It preferred the further support of the already established self-administering organizations of

statutory health insurances and physician associations. The policy makers put these organizations in charge of the provision of medical care for the German population.

The first rationale during the first three decades after WW II was the access to medical care for all German citizens under reasonable conditions, regarding access and timely effort even to secondary care. During this time the efficiency of the developing structures was not one of the primary objectives. Effectiveness was the main objective and led in the following to the emerging growth of the different branches of the health care tree.

From another perspective this could be seen as the manifestation of an institution like North defined it. He describes it as restrictions of human behavior and action in form of norms, rules and laws, which influence political, economical and social interactions (North 1990, 1-10). This institution could be expressed as the fulfillment of the demand of the population for medical care.

According to North institutions decrease transaction costs, but do not create efficient solutions (North 1990, 6). This effect can be observed especially in the German health care context. The self-administering organizations which had to build up and control the processes and payment procedures in the health care system brought a lot of own institutions with them, which were centered on the belongings of the members of these organizations, who were physicians.

Sources of the institutions and the induced institutional barriers are at this point (Luke 2003, 306):

- **Professional communities like Medical councils, regional associations of SHI-Accredited physicians and medical professional associations in combination with autonomy expectations of physicians**,
  which set up and control normative and obligatory rules with a strong organizational and medical impact and which demand and maintain their autonomy.
- **The relationship of health care providers from different sectors and professions**, where, induced by different professional backgrounds and working contexts a strong polarity and delimitation from each group to another hinders a successful cooperation.
- **Mission-Strategy Conflicts**,
  which depend on the embedding institutional framework and ownership type (e.g., community, religious organizations) or on the employee status of the single person. Here institutionalized expectations or individual motivation schemes are produced and set against each other that it is surprising that so many organizations are still holding together.
- **Multilayered Policy Oversight**,
  which implements approaches to develop and control on different layers of the system leading to overregulation and bureaucracy.

The high level of institutions which were implemented in these years led to a well "regulated and contracted" health care system like it was demanded above for the parts between market and hierarchy. But it was too well "regulated and contracted" and moreover not efficient. For one reason because the sight of the self-administering organizations was primarily physician based and secondarily because market mechanisms were not intended. It was and is still a sectoralized framework formed by several strictly implemented institutions, which lower transaction costs, but is not oriented towards efficiency. An orientation towards efficiency

would restructure the system oriented to the core process of health care providing and would tear down the sectoral borders.

A part of the additional costs we have in the German health care system because of the lacking efficiency can be seen as influence costs like Milgrom described them (Milgrom 1990). The power of the sector-oriented organizations is partly used for their own benefit and against public interest. An example for this is a continuing hesitation concerning an information disclosure which would help to implement market mechanisms where they make sense. Also the attitude of a lot of regional associations of SHI-Accredited physicians against physicians networking activities could be explained with this mechanism which is caused by the fear of the "old" system about their decline of influence.

Institutions want to keep the sectoralized status as it is. Inducing and supporting in that mechanism is the fact that existing institutions are generating dependencies and increase therefore exit costs from the actual status in the concerned parts of an economy (Pierson 1998). Due to this, institutions are self-sustaining even if they are from the perspective of efficiency only second-best (Taschowsky 2001, 11).

This is a short description of the development in the German health care system during the last decades. It explains why the actors behaved like they did. Even at the change of perspective at the beginning of the 1990ies, when budgets run low and a change towards efficiency would have been necessary, the exit costs for the institutions were too high to change their structure or even abolish themselves. The particular interests, especially of the physician dominated organizations with their sectoral effectiveness perspective, were too strong, as if a change in mind and behavior had been possible.

This attitude has not yet changed and even the political health care reforms within the last seven years (GRG 2000, GMG 2003, GKV-WSG 2007) have only taken minimal effect. Because of high exit costs and a very high degree of regulation and bureaucracy in the described institutions the “adaptive efficiency” (North 1990, 81) has been very low.

**Networking effects needed**

The question now is: What would be a suitable structure to enhance efficiency? According to Porter, the value chain of the core process had to be optimized according to the value added (Porter 1985, 33-63). That would implicate an organizational structure which is arranged along the core process of health care provision (along the leaves of the health care tree).

We find these core process activities in the lower left corner of Table 1 because of low measurability and ambiguous performance evaluation. These two factors shape an environment, in which Ouchi suggested to implement a clan as a group of professionals with high goal congruency to increase efficiency.

This argumentation leads us to an image of a network of health care providers who are situated along the core process, working close together for the same objective and are well socialized by shared organizational and medical norms and values.

But, could this kind of networking structures and effects be found in the German health care system? Often, they nearly do not exist in the health care system in Germany and in particular at the intersectoral interfaces, the clash of institutions and attitudes is still existent. The change of policy has provoked a clear discontent of the most health care providers. They ar-

gue that the task of politics is only to organize enough money for the system and that the organization of the health care system should be in the hands of themselves.

The existing German networking structures and effects can be divided in two categories. One is the formalized "old" one, which is very narrow and coordination and cooperation only take place at a minimum degree. Every provider keeps his own patient records, around 50 percent still on paper, and gives on only a small amount of information to the next provider. Every provider (outpatient physician, hospital) has its own budget, which in case of an outpatient physician runs out usually at the last weeks of the quarter. Outcome oriented incentives do not exist in outpatient care and it does not influence the budget of an outpatient physician at all, whether a patient is hospitalized or not.

The second form of networking activities has started in the late 1990ies. It consists normally of a group of physicians who wanted to work closer together and cooperate and coordinate more efficiently than before. Because of different and partly divergent motivations of the participants, the development has not been as quick as anticipated. Since 2000, a legal possibility for the insurances has existed, to give financial incentives to the members of these networks. Because of the difficult measurability (see above), these incentives have been primarily fee-for-service based and not outcome oriented.

At the moment a few hundred of networks exist in Germany, but only 10 to 20 can be stated as organized at a certain level. This includes e. g. a network management and a catalogue of objectives and determined measures how to reach them. At the moment the first weak evidence is shown, that these structures are really more efficient in providing health care services, which means more precisely, less costs for the same quality.

That would underpin the findings of the presented theoretical framework and would encourage to look for further general implications, e.g. how to strengthen this form of health care provision.

**Strategies and instruments on policy level**

In order to ameliorate the situation and to strengthen the developing networks, different measures on different levels are necessary. On the policy level the efforts to deprive the described institutions (e.g. the regional associations of SHI-Accredited physicians) of their power have to be continued to raise adaptation efficiency. The effort was made twice in 2003 and 2006, but did not pass the legislation process successfully.

A further information disclosure on all levels had to be realized to get more transparency and the chance to diminish the information asymmetries. First approaches are started with the disclosure of standardized quality reports of hospitals. Also the transfer of outpatient data from the regional associations of SHI-Accredited physicians to the insurances was initiated in 2003. Although a few associations hesitated to perform this change, the insurances are collecting now all this data.

The ability of the insurances to analyze the growing data and use it for controlling activities differs from insurance to insurance. They also were built up under the “effectiveness” objective. Here institutional and subsequently structural and process changes are needed for a better - or perhaps even for the first time - management of their insured people.

The better management should consist by following the above approach in the utilization of market mechanisms with the help of single contracts with provider networks. Here a quality-based, or like Porter expressed it a “value-based” (Porter 2006, 97-148), competition between

different regional provider groups should be established. A competition here could not be price-based because of negative effects on quality. Furthermore the payment structure has to be transsectoral to avoid financial disintegration effects which the system shows nowadays (Popp 1997, 13-18).

Connected to the establishing of markets between insurances and providers, a mechanism has to be designed to avoid opportunism between insurances and provider networks. The uncertainty remains high and the concentration of negotiation power of the insurances would be very high after an abolition of the regional associations of SHI-Accredited physicians. First examples of opportunistic behavior could be seen by the attempts of insurances to contract negative price spiral tendencies or the refusal of contracting a share of revenues generated by efficient networks.

**Strategies and instruments on network level**

*Incentive change*

On network level there have to be some distinct steps that should be made. First of all the present financial structure with sectoral budgets has to be changed into a transsectoral form. Possible types would be a fee per case or a capitation structure.

Capitation payments consist of transsectoral, prospective, morbidity adjusted flat rate payment, which would change the incentive system for providers, because they could earn their money with efficiently diagnosed and treated patients. The calculation of capitations has to be morbidity adjusted to avoid adverse selection effects and has to be contracted in a way the providers participate only partly at the full risk of high illness costs (Sohn 2006, 25-26).

The capitation budget is used by the network providers to purchase needed goods and services, even inpatient and tertiary care, on the regional market. They decide about "make-or-buy" and they are more able to assess the quality of the chosen product or service than the patient. Information asymmetry decreases at this point.

*Information and Communication*

20 to 40 percent of the activities in a health care system are documentation and communication activities (Dietzel 2002). An efficient support by means of a networked IT-infrastructure is urgently needed from several aspects. Examples have proven a return-on-investment after 4.5 years for the use of IT-solutions to manage and archive radiology and other diagnostic imaging pictures (Kaden 2002).

To put up efficiency in the provider network a homogenization of the IT- and communication infrastructure is needed. This will lead to a lot of amelioration effects in the primary activities of the core process, but also in economies of scale and therefore decreasing total costs of ownership for the infrastructure.

Particularly transparency about quality and costs and the decisions about further negotiations and strategies with suppliers and other contract bound partners need inevitably an IT-based solution.

*New forms of contracts with suppliers*

The quality-based or "value-based" competition between different local or regional provider networks could be continued towards their suppliers like the pharmaceutical industry, the medical technology industry or even hospitals and providers of remedies. To give a strong incentive to efficiency a contractible risk-sharing could be implemented. Especially for sup-

pliers which are directly involved in treatment in a certain degree, an outcome oriented pricing would increase performance. Particularly pharmaceutical and medical technologic innovations could be better financed that way and the dissemination in the market, if the innovation is efficient, would be faster.

*Cooperation and coordination*

Amelioration and integration of medical and organizational processes is one of the most important tasks to be done when setting up a provider network. This usually takes place in quality circles and workgroups where infrastructure, process and objective details were discussed and set into action, e.g., medical guidelines, development and market strategies, etc.).

Here the socialization of the clan, that Ouchi suggested could take place. The providers discuss and adopt a catalogue of organizational and medical rules. Qualitative Interviews with successful networks showed, that some are even adopting explicit social and ethic norms and values as basic principle for their work.

The development of clan structures could be supported by a credentialing of potential network members. It should be assessed, if health care providers are willing and able for networking. At the moment we perform a study to analyze the main influence factors of the networking capability of outpatient physicians based on newer neuroscientific findings. The objective would be to assess the congruency of potential members before they join the network. Congruency is needed, like Ouchi stated in general for a successful networking among equal members. Especially in the health care context it is of particular importance. Social and ethic values play a significant role and will increase trust and therefore support efficient coordination and cooperation not only among the members of the network. Also the co-producers in

the health care process, the treated patients, will cooperate better and will have a higher compliance, which will have a clear economic impact, too.

The relevance of clans in health care is seen also by Meijboom. He differentiates the approach of clans in health care even more. He creates the notion “interclan-driven” for the description of the networking between multiple dissimilar health care provider networks with different professions and specialties in the health care system of the Netherlands. He stated also trust as the main coordinating factor, which reduces transaction costs and increases efficiency (Meijboom 2004, 41).

**Conclusion**

The German health care system was described in its development throughout the last decades as an example for the applicability of institutional economics in health care. The high persistence of the organic grown health care system against policy efforts to increase efficiency could be well explained by exit costs of the “old” health care and physicians organizations like the regional associations of SHI-Accredited physicians and the medical councils.

The next steps for the German health care systems are discussed as conclusion from the institutional economics approach at the health policy level and the network level. Provider networks have the opportunity to ameliorate the situation by means of the described economical, organizational and social instruments. It is stated, that one possibility of managing a complex situation with low measurability, low contestability and high uncertainty is the governmental arrangement of a clan, which is primarily based on shared norms and values.

In a complex context like a health care system, a close networking can not be initiated and controlled by market or hierarchy or hybrid forms, only by means of contracting, regulation

and pricing. There is first weak evidence that provider networks are successful and that the more they meet the clan conditions the more successful they are. From the theoretical perspective this effect could be explained by the substantial role trust plays, especially in the health care context and in health care provider networks, where it is a main coordinating factor.

Nevertheless, further research has to be done. On the one hand, the theoretical framework has to be enlarged for a better understanding of health care by means of institutional economics to derive political and strategic implications. On the other hand, applicable instruments have to be further developed in order to strengthen, manage and evaluate the German health care provider networks efficiently towards efficiency.

**Literature**


Dietzel, G.T.W. 2002. Von eEurope 2002 zur elektronischen Gesundheitskarte: Chancen fuer das Gesundheitswesen, in: Deutsches Aerzteblatt, 99, 21, A-1417.

Kaden, I., D. Tolksdorf, J. Schwarzer, C. Sprengel, and R. Braunschweig. 2002. ABC (activity based costing) eines RIS/PACS, Vortrag vom 02.10.2001 beim 8. Interdisziplinaerer Workshop KIS / RIS / PACS, URL: http://www.uniklinikum-giessen.de/kis-ris-pacs/archiv/2001/di1210.pdf [11.06.2007].

Luke, R.D. and S.L. Walston. 2003. Strategy in an Institutional Environment: Lessons Learned from the 1990s "Revolution" in Health Care, in: Mick SS, Wyttenbach ME (eds.), Advances in health care theory, Jossey-Bass, San Francisco, 289-324.

Meijboom, B., J. de Haan and P. Verheyen. 2004. Networks for Integrated Care Provision: An Economic Approach Based on Opportunism and Trust. Health Policy 69: 33–43.

Milgrom, P. and J. Roberts. 1990. Bargaining costs, influence costs, and the organization of economic activity. In: Alt, J. and K. Shepsle (eds.) Perspectives on positive political economy. University Press, New York, Cambridge, 57–89.

Ouchi, W.G. 1980. Markets, bureaucracies and clans. Administrative Science Quarterly 25:129–41.

Pierson, P. 1998. The Path to European Integration: A Historical Institutionalist Analysis, in Nelsen B.F. and A. Stubb (eds.) The European Union: Readings on the Theory and Practice of European Integration, Boulder, Rienner, 295- 321.

Popp, E. 1997. Oekonomie und Versicherungstechnik in der managed-care-Versorgung: Unter-suchungen zur Effektivitaet, Effizienz und Chancengleichheit integrierter Versorgungs- und Verguetungsmodelle in der gesetzlichen Krankenversicherung bei Honorierung mit „Kopfbudgets und kombinierten Budgets", in: Knappe, E., G. Neubauer and P. Oberender (eds.): Schriften zur Gesundheitsoekonomie, Bd. 19, Bayreuth.

Porter, M.E. 1985. Competitive Advantage: Creating and Sustaining Superior Performance, 1. ed., Free Press, New York.

Porter, M.E. and E.O. Teisberg. 2006. Redefining Health Care: Creating Value-Based Competition on Results, Harvard Business School Press, Boston.

Preker, A.S., A. Harding and P. Travis. 2000. "Make or buy" decisions in the production of health care goods and services: new insights from institutional economics and organizational theory. Bulletin World Health Organization 78(6): 779-790.

Rueschmann, H.H., A. Roth and C. Krauss. 2000. Vernetzte Praxen auf dem Weg zu managed care?, Springer, Berlin.

Sohn, S. 2006. Integration und Effizienz im Gesundheitswesen: Instrumente und ihre Evidenz fuer die integrierte Versorgung. Schriften zur Gesundheitsoekonomie Bd. 8, HERZ, Burgdorf.

Taschowsky, P. 2001. Neuer Institutionalismus und die europaeische Sozialpolitik. University Hannover, Department of Economics, discussionpaper 250, ISSN 0949-9962.

Williamson, O.E. 1985. The economic institutions of capitalism: firms, markets, relational contracting, Free Press, New York.

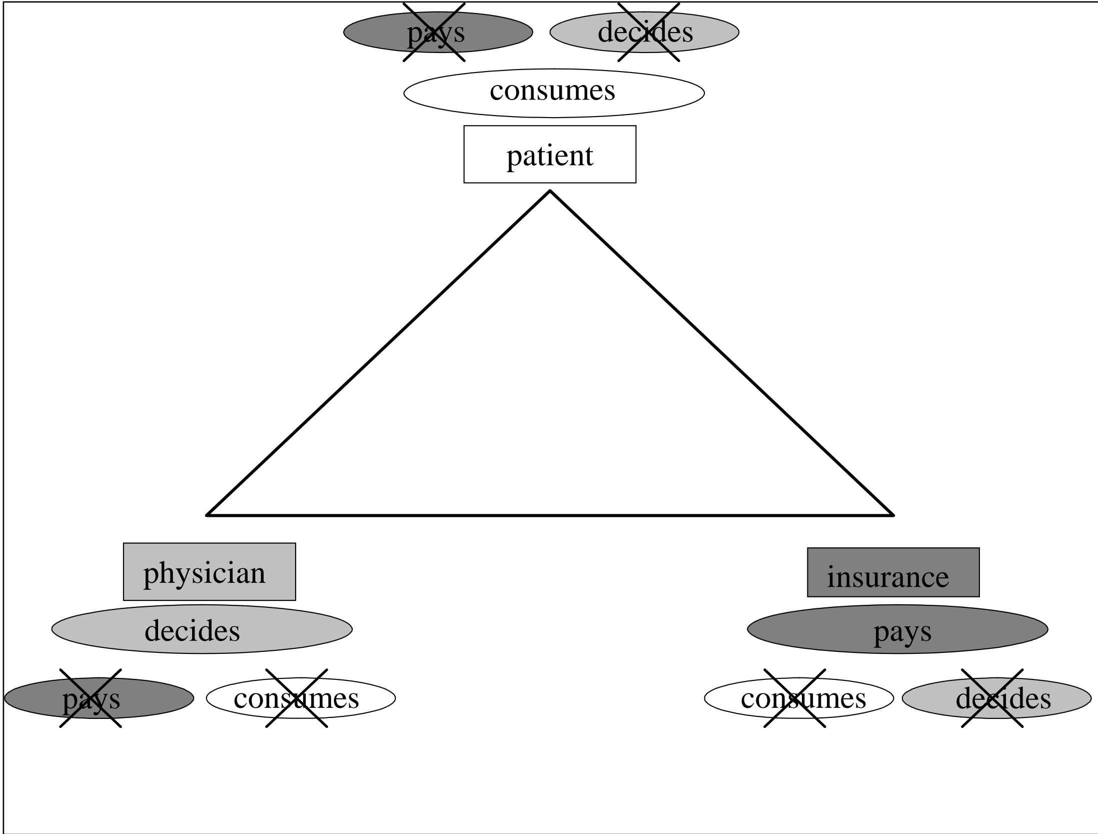


**Figure 1: The non-market situation in the German health care system (Rueschmann 2000)**

| | High contestability | Medium contesta-bility | Low contesta-bility |
|---|---|---|---|
| High Measurability | | | |
| Medium Measurability | Non clinical activities<br>Mgmnt support<br>Laundry & catering<br>Routine diagnostics | Clinical interventions<br>High tech diagnostics | |
| Low Measurability | Ambulatory care<br>medical<br>nursing<br>dental | Public health inter-ventions<br>Intersectoral action<br>Inpatient care | Policy-making<br>Monitoring /evaluation |

**Table 1: Measurability and contestability of health care outputs (Preker 2000, 783)**