

# ACHILLES' HEELS OF HEALTH CARE SYSTEMS

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## Introduction

The current economics of health pays extensive attention to detailed analyses of structures of different models of financing health care which are based on calculations, the economic position of the actors and rational economic allocation. Less often, these models are presented in the context of the need for health care, institutional arrangements of health systems and health policy outcomes in the form of affordable and quality health care in the community. Therefore, it appears useful to analyze theoretical background of the layout options for the health system and by showing them the mechanisms to operate, but also the failure of variants differing by means of financing and ownership structure.

Please recall in this context that the classification of health systems in their institutional structure and defining the role of the private and public sectors has already been made in the literature. Therefore, the article in its theoretical citations builds on a relatively broad overview of relevant theoretical literature from health and social policy and health economics. The main objective of the article, however, is to explore why different models fail, and therefore where are their weaknesses and what are their causes. We are trying to show that the core structure of health systems has resulted in their susceptibility to certain types of problems, mainly because all health systems are constantly faced with the reality in the form of an objectively emerging health care needs. In this sense our effort could be compared to seeking side effects of some medication and evaluating their importance and causes, not primarily focusing on evaluating effectiveness of the treatment itself but of course while maintaining a careful view of the situation as a whole.

Using the method of deduction and analysis of the economic structure of different systems it can be inferred that the waiting lists, deficits of financing and not realized health care are some kind of Achilles' heel of the health system and the transition from one system to another - in pure form - is just the change from one type of such a failure to another. For this reason, it discusses possible solutions for the convergence of health systems, its basic value and informational value to readers, however, lies primarily in understanding the laws, theoretical background and the limits within which possibilities for the organization and institutional arrangements of health systems vary.

An article in the theoretical analysis refers to empirical evidence from health systems in USA, Britain and Germany. Another method used is thus an international comparison of this evidence. Therefore, it is beneficial if the reader poses basic knowledge of the functioning of these systems at about the characteristics of the "country surveys", published by European Observatory for individual countries.<sup>2</sup>

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<sup>2</sup> European Observatory on Health Systems and Policies, <<http://www.euro.who.int/observatory>>.

**Theoretical background**

Culyer, Maynard and Williams (1981) specify two prototypes of an ideal health system, called X and Y. According to their classification a model X is such that "has as its basic principle of customer sovereignty to a decentralized market where access to health care by selective willingness and ability to pay." Finding this sovereignty through private insurance permits access to insured services free of charge in some appropriate time, allows private ownership of means of providing health care as well as offering a reward of health care according to market criteria. The second one, a model Y, "has as its fundamental principle of improving health for the population as a whole, allows selective access to care, according to its actual capacity to improve health. Health status improves through a system funded by public funds. Allows the public ownership of means of providing health care, centrally managed resource allocation, and also allows monopsony in the healthcare market to determine payment for those supplying health care." Donabedian (1971) adds that "access to health care in the X model, interpreted as akin to other useful things in society such as food, etc., that it is part of the social system valuation model and Y is seen as a civil right, like the access to the courts or the right to vote.<sup>1</sup> Considering this approach with reflection to European reality, it can also be transposed to principle of social rights as defined by European social charter.

These models are not presented here because they were implemented in practice in this pure form. For purposes of this analysis, however, in my view they are essential, because it shows that the model X security prevents adequate health care for all members of the company (because the relative poverty is a phenomenon permanently) and Y model emphasizes the public interest as a way to achieve quality. System X can be assigned to the liberal approach to health care, system Y will embrace egalitary approach.

These net types can be further analyzed in terms of whether their practical implementation is possible or not. Such an analysis was done by Williams (1997b). He sees the fundamental problem in the sense that the role of "agent" which is performed by doctor, sees him working as a recipient of patient information, that enables him or her (the doctor) to make a treatment decision which is subsequently due to patients when they - as doctor's clients - realize in the form treatment. This thought is followed by saying that if these doctors are not "perfect agents" and pursue other interests than the benefit of the patient, then the X system tends to offer more and the system Y to offer less than the real needs of the patient are corresponding to. The paradoxical situation which results from this is the fact that a private system, which generates strong incentives for efficiency at the micro level, on the macro level has serious efficiency problems, since it is not able to control the volume and total amount of health care provided. Conversely, a purely public system of budgetary constraints has no problem with restricted spending at the macro level, but has serious problems at the micro level, also with quality and responsiveness due to lack of incentives at this level. Real national health expenditure, as we have the opportunity to monitor the statistics that confirm the facts, as well as some results that could be seen in the following comparison.

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[cit.1.9.2009].

<sup>1</sup> More common in practice, however, is the concept of access to health care as social right, such as in the Czech Republic.



Practical solution is then sought in the ideal combination of these principles. Rather theoretical way is to create a system where some services will be financed from public funds (e.g. hospitals), and some private (e.g. outpatient care). The second, at the first sight more practical way, is creation of two existing systems that operate side by side. The problem lies in the fact that funding of parallel systems is difficult, and also each added substantially to dissatisfaction of everyone involved when high income groups feel that they contribute to system that they do not use, and low income groups feel that the system they have to contribute to and rely on is definitely not the best one. Therefore, a balanced position of the parallel systems usually does not occur, and many existing systems are close to the third type, where one system plays a dominant and the other smaller, carefully defined role. As Williams states, the commercial systems, easing its hard rule "you do not have, you do not get" by organizing a "small public system" for low income people and those whose health condition does not allow insurance risk. These systems typically pose lower quality than the private alternative in the same country (if they were the same, no one would have signed private insurance). Likewise, primarily public systems mitigate the "do not need this for medical reasons, you do not get" rule with the existence of "small private system" allowing high income people to form health care groups according to their preferences.<sup>1</sup>

Although the model Y can serve as a basis for the functioning of guaranteed health care system, there are many facts that undermine its real-world performance. While preparing this text, I have encountered many such facts. Although they do not weaken common reasons for the need for a guaranteed health care system, I consider their critical analysis not to matter in terms of identifying the risks to which they are exposed to such systems. In particular, it is obvious that especially the initial models of Beveridgean Y-type systems expect perfect spending of public funds, which is definitely possible, however, problems with the efficiency of public resources allocation are also widely recognized. In this sense, many theories of government failure and limits of its production functions highlight the pitfalls that can use public funds to occur. Because all real systems of financing health care utilize public resources to quite a big extent, they have to cope with the possible failures of public funding. It is also necessary to monitor whether the declared objectives of the system are in practice and in particular patients actually met, the system responds to the needs and priorities of a citizen, led by its contribution to the funds of health insurance or the government budget.

Somewhat different scheme, more approaching the concept of health systems<sup>2</sup> in reality, is defined by Křížová (1998).

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<sup>1</sup> See Williams (1997a).

<sup>2</sup> Of course, even Williams and Culyer made in other texts a projection of their ideal systems into the real world.



**Table No. 1: Classification of health systems in the context of social policy principles**

	Liberal approach	Egalitarian approach	Utilitarian approach
Based on	Freedom and responsibility of individuals	Group liability and obligations of individuals	Benefit to society
Typical country	U.S., South Korea	United Kingdom, Sweden, Spain, Canada	Federal Republic of Germany, the Netherlands
Healthcare	Is goods and has its market price	Is publicly distributed civil service and the basic civil right	Is a social profit, benefit
Leads to	Market health system	National Health Service	Public health insurance
Health care is received by individual in the form	As a reward, based on merit	As a result of a regulated relationship between providers, payers and patients	
	According to the principle of equivalence	According to the principle of solidarity	The combination of solidarity and equivalence
	In a free exchange on the market of providers and clients	According to the health needs, regardless of social status, all the same under the principles of objectively needed optimal, sometimes maximalistic health care, limited resources have caused time delays in the implementation of care	Limited, in the interests of the company with respect to maximum benefit for society in the long term individuals may receive less than optimal care, the division of health care to basic and premium

Source: KŘÍŽOVÁ, E. *Rovnost ve zdraví (ekvita) v transformovaném zdravotnictví České republiky*, Praha: studie Hlávková nadání, 1998, added, updated.

This concept corresponds to different principles of social policy, as stated by Žižková (in Krebs, 2005). It is able to make a clearer link between each type of health systems and theoretical approaches commonly used in social policy of individual countries.

In terms of achieving efficiency, this analysis considers appropriate to take another type of classification of health systems - according to the funding mechanisms and ownership of medical facilities. If we follow this classification, we can define three basic types:



**Table No. 2: Typology of health care systems based on financing and ownership**

Marking System	Financing	Medical facilities (ownership)	Corresponding to the
V-V	Public - taxes	Public	National Health Service
V-S	Public – social insurance	Private, or. pluralistic structure	Public health insurance
S-S	Private – private insurance	Private	Market Health

Source: own processing.<sup>1</sup>

The first of these types, called the model V-V, produces health care as a public good - that is financed from taxes and its level is determined by political decisions. The effectiveness of this model is determined by how effectively is a government able to produce public goods, using the mechanisms of public sector economics. It is worth noting, however, that based on Samuelson's classification of economic goods based on rivalry and excludability, the health care with notable exceptions does not fall in the category of public goods. So, here we employ Bénard's institutional classification, leading to classifying health care in this model as "public provided goods", which comes out of a public choice to provide those goods by the government without dependency on interaction of individual supply and demand.

The second model, i. e. V-S, is rooted in the autonomy of health facilities but their "control over public money". It consists in the fact that political decisions and economic possibilities of the country are given a certain level of public funding, typically in a special fund of public health insurance (that can be managed by multiple operators), and by the amount of funds and co-definition of health care, which for them is to be provided and determined by the position of medical facilities. Medical facilities may have a multi-ownership structure, the goal is mainly the existence of an adequate network of health facilities, the efficiency is not perceived as crowding out of competitive medical equipment from "market".

The third model, i. e. the S-S model, is based on an interaction of private insurance and private health facilities, which determines the cost and volume of medical care. In practice, the fact that due to the unavailability of private insurance for a relatively poor people, one of the buyers of health care in the private sector becomes the government through various instruments of public (or rather social) nature.

Theoretically, there could be a model S-V which consists of the fact that a government should operate medical facilities where citizens consume care under a single official price list and is financed not on the basis of taxation, but direct payments at the time of consumption. As far as I am concerned, this option, however, is not used in practice and therefore it will not be considered further.

<sup>1</sup> Because in English both terms (public-veřejný and private-soukromý) begin with same letter, we decided to keep the original Czech symbols, so that the models are easily recognizable.



Note that there are systems where health policy is not conceptually implemented due to lack of resources or political will (developing countries, some specific areas). The government intervention covers toughest social aspects only, complemented with voluntary charity. Generally the direct payments dominate, or non-specific types of insurance risks are used.

The system of the V-S and S-S widely employs the principle of health insurance, whether of public or private basis.<sup>1</sup>

Public health insurance is based on principles of social solidarity and the sharing of health risks of all citizens. From the philosophical point of view, it comes from the fact that the demand for health is common to all rational thinkers, and the objective needs and level of health care that are based on scientific knowledge. It is based on the societal contract legitimized by legislation and the democratic process and mandatory payments of the citizens to the funds of universal health insurance, typically separated from the state budget. Cumulative risk is the population covered by the Fund. Currently, the approaches are analyzed<sup>2</sup> to the effective spending of public health insurance through the so-called operators, that is, a pluralistic structure of health insurance. Insurance is determined by percentage, i. e. in relation to income. Allocation of resources is done by public health insurance companies that receive public funds under the Act. Principles of public insurance have been analyzed in theoretical models of numerous authors and are also mentioned in the documents of international institutions as an effective way to finance health care.

Private insurance is able to respond to health events in life of a person who concludes an adequate insurance policy which includes the care required by his or her state of health. It uses its own tools to motivate the insured person to economically rational approach to the consumption of health care, when there is a change in his health condition. Institutions involved in collection and allocation of these amounts, thus commercial health insurance companies, then realize the solidarity of its clients in the insurance groups with the same or similar contract, while maintaining voluntary closure policy.<sup>3</sup> To avoid possible dissatisfaction contractually agreed performance or financial instability of the insurance companies, there are refined and sophisticated complex insurance models that sought to quantify the risk of a particular client. The paid premiums then entitle the client to predefined health care consumption. In private insurance plans are firmly in place the so-called deductibles, which are expenses that the insured person pays before the payment from insurance takes place, and co-payments, when the insured person participates in the cost of their treatment as a share of its total value. A type of moral hazard for insurance implies what type of payment to choose. If moral hazard increases the risk of the existence of claims, the insurer should choose deductibles. They will encourage the insured to be more cautious, and moreover, they will not burden for small damage. Conversely, if the moral hazard of the type increases the size of the damage, the insurer should choose the co-payments because the insured

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<sup>1</sup> Here I can only recommend a detailed interpretation of the problem in Culyer, A., Newhouse J. 2000.

<sup>2</sup> E. g. See Mahieu, R., Grignon, M., Chone, P., 2002.

<sup>3</sup> Nonetheless, it should be recalled that public health insurance employs the principle of solidarity of all citizens.

person will be stimulated to try to minimize the amount of loss. Deductibles and co-payments can also be combined but there is a real problem that this may completely discourage potential clients from buying an insurance product.

A detailed comparison of private and public insurance is as follows:<sup>1</sup>

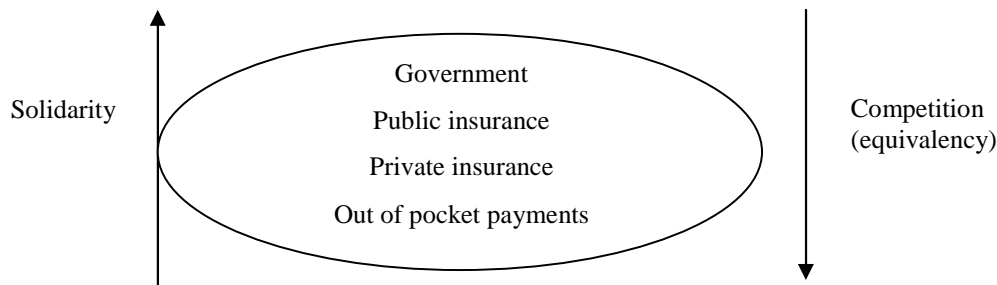
**Table No. 3: Comparison of private and public insurance**

Private insurance	Public Insurance
Insurance is based on the risk of the client (health, sex, richness) and the implementation of the negotiated contract	Insurance premiums are determined as a percentage of the labor income insured, for all the insured in a fund
The premiums are associated with real risks, options, and the willingness of clients to insure.	The amount of insurance has close ties to the national economic variables such as wage
Payments for care, which are agreed on in the contract - individually for each client or group	Payment care, which is defined in the legislation - for all clients in a uniform statutory insurance
The existence of insurance is the result of voluntary interaction of both parties, there is no obligation to insure or be insured	Insurance is mandatory for all persons defined in the legislation
Co-payments or deductibles are determined on the basis of the insurance contract	Participation is determined on the basis of socio-economic criteria

Source: own processing on the basis of Goulli, R., Mertl, J. *Public funds for the provision of health care. Podbanské 04/05/2004 - 05/05/2004. In: Current issues on public finance, Acta Facultatis Aeriai Public, Matej Bel University Banska Bystrica, 2004.*

Use of different types of funding also influences the degree of solidarity and competition (equivalency) in the system, as illustrated by the following scheme.

**Figure No. 1: Solidarity and competition (equivalency) in the health care systems**



Source: Saltman, R. B., Figueras, J. *Critical Challenges for Health Care Reform in Europe, Buckingham: Open University Press, 1998*

<sup>1</sup> Valid in general, for example in the American system of private risk insurance can be found parallels to the left column.

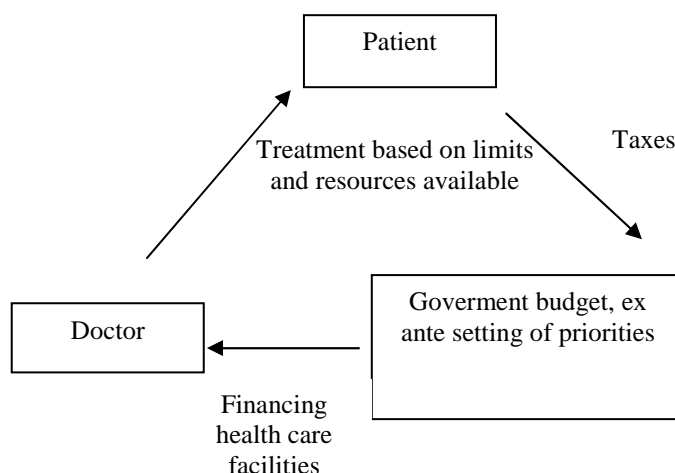


**Waiting list, deficits and health care not put into practice – just different forms of the same problem?**

From the description of health care systems, it is clear that none of them is ideal, each has its own problems to be addressed. Negative aspects of health systems show that where there is "a friction area of effectiveness", the weakest parts and disadvantages of each system are shown. It is therefore important to analyze why this is so.

In a system of national health services (i. e. type V-V according to our classification), the level of health expenditures is determined by political decisions at the state budget. The basis of efficiency is the allocation and planning role of the state which uses the mechanisms of public sector economics. The following image shows the logic of the system.

**Figure No. 2: Model V-V**



*Source: own reasoning.*

It is essential that there are available resources in this model which are centrally determined in advance, and which ultimately create the limits of each type of care implemented in the form of determining the number of specific health care procedures etc. In case of absence of such limits, this system would not be sustainable.

Therefore, when there is a greater need for health care than expected, which applies especially for expensive one-off health care procedures, there is no choice but to create a waiting list on which the patients are combined, who have not received it in that period. In theory, these instruments also serve to combine and register the care needed and determination of priorities. At the same time due to the planned health care procedures clearly given, total level of output per year can be carried out. The creation of a waiting list, which is cited as a major problem of this system, is so inherently present and based on this logic because the system is using these lists and prioritization of potential patients and determines the need for social as well as the need to compare between different groups of patients. They are the practical expression of management of effectiveness at the central level (with the full understanding of its negative aspects).

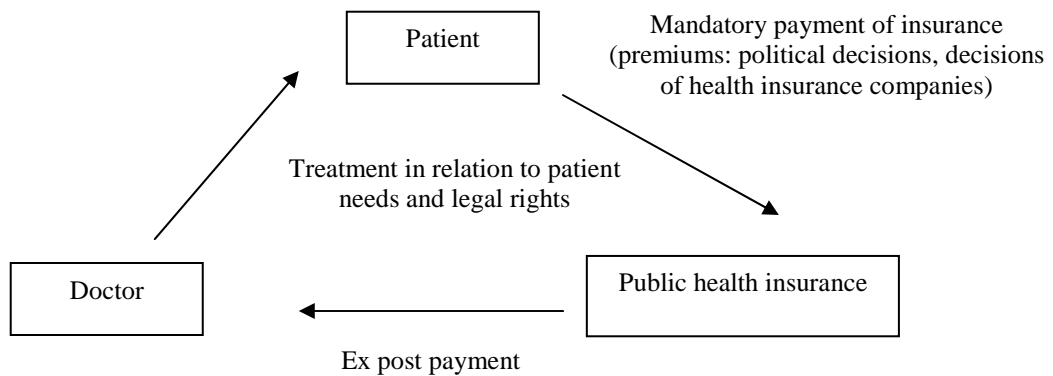




Empirical model that best matches the V-V model is the UK health system.

In the public health insurance system (i. e. S-V type according to the original structure) the situation is different since the limit is not established and managed centrally; it is "only" seen as a problem if spending rises above the tolerable level for the load factors of production, especially labor. At the same time, there is usually a guarantee of available health care which is paid by public funds. The basic problem is to keep health care costs consistent with available resources. The figure below indicates once again the logics of this model.

**Figure No. 3: Model V-S**



*Source: own reasoning.*

In this model, the principle is that health care "free of charge at the moment of consumption" is consumed first and only then is it to be paid off by health insurance to the health facility directly. If then the resources that health insurance company has at its disposal are not sufficient, there will be accumulation of deficit or increase in the premium rates, if such a mechanism is granted legislatively.<sup>1</sup> A partial solution to this problem is the approach used for example in France, where the payment is made directly by the patient at the medical facility, and then later reimbursed to him or her by an insurance company.<sup>2</sup> The question of deficits is the key issue of public health insurance and is based on the logics which has just been mentioned. In systems where the allocation role of public insurance companies within the meaning of price negotiation is weakened and there is no possibility of adjusting the premiums deficits arise regularly.

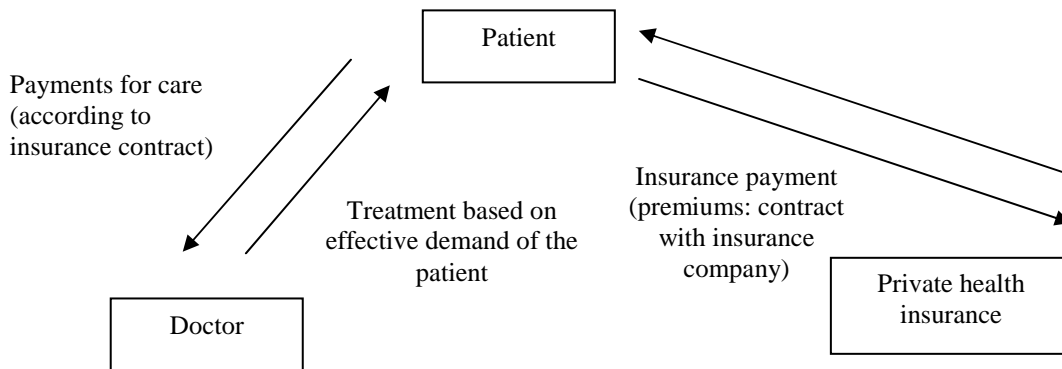
Empirically, this model corresponds to the German model of health insurance in the public (social) parts, as it led to the practice of Chancellor Bismarck in the 19th century and later it was developed during the 20th century.

<sup>1</sup> In the Czech rep. not, but for example in Germany, as been already stated, yes.

<sup>2</sup> However, it is clear that without regulation and correction mechanisms, as refined in France, it would be the only game with a patient's wallet.

In the market system (i. e. S-S type in the original structure), the situation is very complicated to analyze. It should be abstracted from the public part, which in the system currently represents a significant proportion, and a diagram of pure market system can be drawn. That is the picture below.

**Figure No. 4: Model S-S**



Source: own reasoning.

In this model, private health insurance poses the nature of security and protection for the individual, not primarily the efforts of an efficient allocation. Patients demand care in medical facilities and for those it is essentially irrelevant, from what sources (patients' or insurance company's) it will receive funds to pay for the health care provided.<sup>1</sup>

It is essential, however, that if a patient does not have the required resources available and someone else, such as health insurance, is not willing to pay the expenses for him or her, health care is not put into practice.<sup>2</sup> In this relationship, the efficiency at the micro level is determined - simply because if a particular transaction is not paid, it does not occur, it is not realized, just like on the general market. If the patient care does not demand health care due to its budgetary constraints, we do not even know if he or she has any medical problem.<sup>3</sup>

The empirical model we find in the health care system of the United States of America.

<sup>1</sup> This is also why in the diagram above the relationship between a private health insurance and a doctor is not plotted. In its pure form, forms of "managed care" as we know them from the U.S. system, are only a form of development in market model, not the default principle.

<sup>2</sup> Unless it is done for solidarity reasons. But this economic analysis model cannot be expected. It can well be so, and as we know from American system, it also can be done by the government. The question is whether it is systemically correct.

<sup>3</sup> In this context, the position of the patient on a waiting list in the V-V and patients without financial resources in the S-S can be seen as equally bad. This can be weakened by the statement that it is always better when there is need for health care, at least we know it and we can deal with than if we do not know about it at all. Moreover, the presence on the list does not mean that patients were not parallelly treated for their disease using other methods. The problem is wider than can be outlined in a limited space of this article. For more, see e. g. Williams, W. Free Health Care. Human Events Online, <<http://www.humaneventsonline.com/article.php?id=4551>>, [retrieved 1. 9. 2009], Culyer, A.J, Maynard, A. (eds). Being reasonable about the economics of health. Selected essays by Alan Williams. Cheltenham: Edward Edgar Publishing, 1997).



When we summarize lessons learned, the waiting list is emerging as a possible excess consumption of health care over the centrally pretended and regulated volume, which is in the V-V model recognized as objectively necessary and therefore payable from public sources. The deficit of health insurance in the V-S model is created as a discrepancy between the real patient interactions - contracted medical facility that is (mostly ex post) funded under the public insurance. Finally, the care not realized in the S-S is a manifestation of a combination of market failure in health care and as such it leads to empirical limitations of rationality and decision-patient gap between disposable income and need for health care.

Presented considerations and lessons learned from a description of the health systems lead to formulation of the following conclusion. Waiting lists, deficits of public health insurance and not realized care are manifestations of one and the same problem which lies in the practical implementation of specific principles of rationality and effectiveness in concepts of health systems. Where in the system emphasis on efficiency is laid, which is seen as crucial for long-term stability of the system - that in itself it also provides an escape valve, which, especially when inadequate compensation, despite compliance with other required parameters of the system escapes the attribute,<sup>1</sup> which then backwards destabilizes the system.

If we intentionally exaggerate the problem, then the market system (S-S) places such a responsibility on individuals and their decisions within the budgetary constraints, that in an environment of information asymmetry and budget limits they often make wrong decision in relation to their health. Or even due to the presence of such mechanisms an individual does not have any space for such decision. The system of public insurance (V-S) guarantees access to health care but has a problem with the expenditure side; it is difficult to effectively limit spending which give citizens the legal right and which are typically carried out before they are paid for. Finally, a system of national health services (V-V) can "pull" spending at the center in such a strong manner that in reality, it could be seen as underfinanced given the needs (or more demands) existing, and the desire for efficiency may lead to the fact that costly health care procedures become "scarce goods" and there will be need for the creation of waiting lists.

Does this mean that whenever we conceive any system of financing health care, it always contains such a weak point - Achilles' heel? I think so. I see the cause particularly in the existence of objective health care needs.

From the analysis of behavior of patients, it is clear that the demand for health care is a complex phenomenon that often has the characteristics of the common market demand for the service. It is therefore appropriate to reveal the issues to a greater extent - even with the knowledge that such analysis has unquestionably been an evergreen of health economics since its inception.

Economic rationality is not the only criterion that can be applicable in this context - and not all health care is consumed as a result of specific demand. In this context, the terms used are health care needs and the demand for health care. The demand for health care is perceived as an individual economic decision about health care, that will be

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<sup>1</sup> Financial sustainability (deficits), the availability of expensive health procedures and access to health care across social groups.

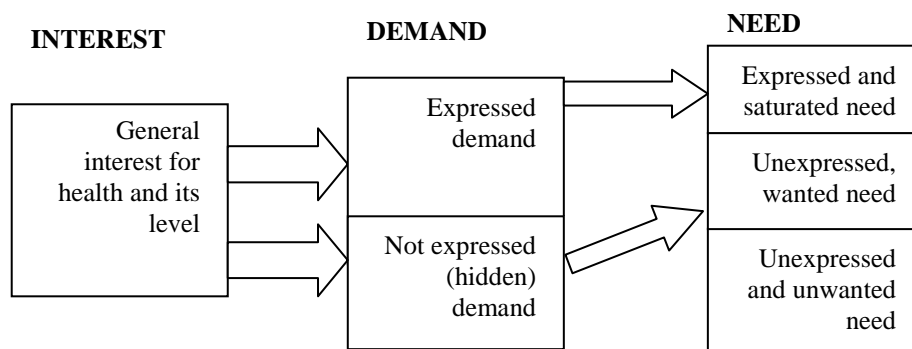


consumed with the intention to improve one's health. On the other hand, health care needs are determined by a physician,<sup>1</sup> who decides what health care is needed for a particular patient.<sup>2</sup>

It is also necessary to recognize the difference between health care and health. Where there is a close link between these two entities, there may be individual demand for health care associated with demand for health. Where is this relationship more relaxed,<sup>3</sup> it is rather that an individual demonstrates an interest in the achievement of health, either by a health care demanded, which implies that it will lead to his recovery, or if his health status is objectively recognized as requiring treatment, it is hereby determined by recognizing the need for health care. You can thus create, in line with Cooper (1975), a consequence, where the individual's desire for health are result in a visit of a doctor (and thus the demand for care) but not all such demand is recognized as the need for medical care, and vice versa; health care to the individual can be indicated as necessary that he or she never thought of demanding before. In this context, the demand for health care is executed if the intersection with the opinion of a doctor, who also sees demanded health care as useful and recognizes it as necessary, is found.

Such division can give us further details. It is Mooney who states access from perspective of the individual (1992).

**Figure No. 5: The interest, the demand and the need for health care**



Source: Mooney G. *Economics, Medicine and Health Care*, second edition. Essex: Prentice Hall, 1992.

In this scheme, the interest in good health (and rather predictable and not questionable for rational individuals) is divided into demand, which is shown to the doctor and one that is not. It then implies the distribution of health care needs of the one that was:

- expressed and saturated (realized),

<sup>1</sup> Or the society as a whole - see the concept of Williams (1997a).

<sup>2</sup> Boulding argues that the concept of health needs may associate opposition to the liberal conception of health care, as only a slave's needs, a free man is in demand. In extreme form may of course be needed health care used as a tool of the patient's refusal of full sovereignty. This approach to health emerged in some socialist countries. However, in a lot of situations in health care the concept of need is fully appropriate. BOULDING, K. E., 1966.

<sup>3</sup> And this situation prevails in the health sector.

- not expressed, and yet it is felt,
- neither expressed nor felt.

A specific example may be found in the decision making process of a person who is suffering from gallstones. He or she can feel health problems and seeks to confer his doctor with them to ensure *lege artis* treatment. Or he or she may experience problems but does not seek treatment because of subjective reasons (money, anxiety, etc.). Finally, his gallstones might not cause him any subjective problems, however if he had visited doctor, he would have been treated or at least monitored. If he does not do it intentionally, he may not be aware that should be treated, and therefore he is not.

Williams notes that the reduction of health care issues to a simple demand is oversimplification of the problem, and does not give too much hope for success to those economists who would like to determine the priorities in health care only from the analysis of demand for health care.<sup>1</sup> Critical analysis of health care needs in his concept is divided into three different players who take decisions - patients, doctors and society. Human values rankings are individual and differentiated. Whether the patient sees a doctor, it may be - and remember „unexpressed and unwanted needs" - even induced health policy makers, even if the patient did not intend to do so. Of course it implies, *inter alia*, that health policy makers are responsible for designing and implementing such incentives. Technical (medical) criterion of the doctors - that the patient may benefit from treatment in terms of quality of life and *lege artis* process - is also a subject to comply with the case of socio-economic criterion - that if it pays off if such treatment is provided and resources for it are available. It is therefore in this concept quite irrelevant whether private health insurance company actuary decides on what is paid, or an elected politician in the democratic process. According to Williams, anyone decides on priorities, anyone is under tremendous pressure, which tends to move to independent experts (Williams, 1997). Such hiding under the expert opinion may be beneficial, but it also entails a risk, if an expert is not an expert in the relevant fields or is influenced by some interest group. Similarly, it is necessary to truly assess all the relevant priorities, rather than reduce the decision to be treated solely on the cost benefit analysis.

Whether we define the need for health care in any way, its presence in the health sector is therefore indisputable. It is embraced in health systems in different ways - they even may not fully saturate it - but then must deal with the fact that the existence of such needs will be perceived as their failures.

After the exposure made, it is necessary to state that players in the health systems have long been aware of these issues. Therefore, they seek to compensate for the negatives, which could be seen, with the introduction of other mechanisms, regardless of their own nature or inspired by other systems in an effort to eliminate those negatives. Such procedures can sometimes seem to dismal, and often in practice strong calls for the system purity can be heard. Yes, the systems should be clearly built on their foundations and theoretical principles, but in practice without adequate compensation they lead to

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<sup>1</sup> WILLIAMS, A. (1978). In spite of the very concept of demand as an instrument of determination using the priorities, I consider it useful to refer to his views - as representing the very broad perspective on the issue of determination of health care.



the trends described. The often cited negatives are used as an argument against a particular type of system without simultaneously adding, that by simply switching to another system, there is just a change of form or expression of inefficiency, rather than its limitation. This is one of the reasons for the introduction of other mechanisms.

### **Convergence of health systems – is there an ideal model?**

Seen by the prism of previous text, it should be obvious why the world's health systems approach to the implementation of certain mechanisms can actually look like "from another world."

The debate on waiting lists has long been led in the system of National Health Service. Practical solution is also, that in the context of European integration, in certain cases it is allowed to consume a British patient care outside the United Kingdom, as well as increasing patient choice, if they remain long on waiting list. The structure of patients on these lists is being analyzed to determine whether the statistics of the waiting and the length of waiting time masks substantial health benefits that could be implemented, or if it brings only minor effects. In this context, the QALY indicator and other methods of assessing cost-effectiveness of specific therapeutic methods are used.

Likewise, the introduction of quasi-market principles and the allocation system rooted in economics of public sector can be considered to be a manifestation of efforts to offset the traditionally encompassed the negative of this type of system. In these concepts we can trace the reasons behind the pure public systems to use pseudo-market approach, such as fund-holding or hospital trusts. This gives rise to separation of payers and providers and to curb government's role as purchaser of the care. Similarly, for example in Sweden, models of competition have been tested among public buyers of care. They are generally not quite systemic in practice and not always successful, and their usage contribute to general increase in spending on health care. However, utilizing those quasi-market approaches, health systems are able to offset some of the disadvantages of the traditional pure public access.

The public health insurance system, which is the most differentiated system in different countries, implements a wide range of tools that are already currently well short of the original principle of Bismarck's social insurance. Employment principles, as documented in the development of the German system in the 1990s, is phased out, both in terms of public access to the application of economics involving competition in the public sector and in the context of increased labor market flexibility and frequent migration of workers between employers and even professions. There are significant differences between countries using bismarckian principles, Dutch and Swiss insurance system would deserve a separate analysis, they move to more competition among insurers.

In market systems - paradoxically - the growing role of the public sector is reflected; on one hand, there is a market effectiveness driven system, but it logically excludes the relatively poor and those who are not willing to allocate resources for health insurance in the form of ex ante, and there is the pressure on public resources, in terms of purchase of health care in the private sector by the government at the prices, at which the private sector is willing to sell the government care. Yet for those which are not covered by public programs, there is a problem of not realized care that nobody knows



about, and a care which may not even occur, if the loss of health will not be publicized, or if the patient dies a timely manner.

Convergence of the systems may be partly proven numerically by the data on the share of public funding in total expenditure on health. It is shown in the table below.

**Table 3 - the share of public spending on health to GDP, in %**

	1970	1980	1990	2006
CZ	96.6	96.8	97.4	88.0
Germany	72.8	78.7	76.2	76.9
United Kingdom	87.0	89.4	83.6	87.3
USA	36.3	41.2	39.4	45.8

*Source: OECD Health Data 2008.*

In the U.S., there is an apparent shift from private funding to higher share of public funding. However, in the case of Germany and Great Britain's, the share is broadly stable, with the exception of UK in the 1990, which was a result of reforms in the eighties. These were partially reversed in the 1990 though. It contributes to this fact that these countries have changed method of financing (within the meaning of competition in the public sector and optimize the efficiency of public spending) but not the source of funding.

little retreat from the employment pillar of health insurance is also a common aspect of health systems. For example, in the U.S. it is seen as a problem that people who do not have a large employer providing them with health insurance have less chance to sign such an insurance. The German system has been gradually abandoning the principle of employer based health insurance since the beginning of the 1990s. This does not mean that the employer should not further contribute to the insurance. What can be seen in the background, is of course the greater frequency of changing jobs during human life and the pursuit of independence and the existence of insurance coverage on the current situation of the employer by tying insurance to a citizen alone, preventing such a called "job lock".

In most health systems, centers for researching and optimizing clinical practice of physicians have been set up, such as the German Institut für Qualität im Gesundheitswesen und Wirtschaftlichkeit, or British National Institute for Clinical Excellence and the Modernization Agency. They have Research Agency for Healthcare Quality with similar objectives in the U.S. as well. Such institutions need to respond to the evaluation of quality and costs of individual treatments. The aim of such an evaluation is to optimize the clinical practice and available treatments. A secondary objective is objectification of costs of medical procedures and increase security for patients in the form of guaranteed information on the use of therapeutic methods.

I think that we can see the convergence of healthcare systems currently in such a way, that they are intended to cover the required and necessary part of healthcare through the mechanisms of public economics and efficient allocation of public sector and allowing elections and private security in the event of care objectively unwarranted. Moreover, private financing prevails at the social groups, whose financial and social strength is



objectively so huge that it makes the assumption they can really take the responsibility for their risks, or so large that it is politically impassable them this option to withhold. Although this development potentially threatens the public part of the system (since there is a risk escape of rich citizens insured, either outside the system of public insurance, or only to certain public insurers (cream skimming), which may destabilize the system), this convergence is the result of efforts to eliminate the typical negative individual models. However, the result can be also seen in the need to address the issue of coexistence of public and private insurance.<sup>1</sup>

Additionally, as does the American system, we can support systems for low-income groups and thereby enable them to "operate" (such as Medicare). The support obviously comes from the taxes paid by high income groups, however. While this practice is obviously non-systemic and highly expensive, we can see it as a necessary price for allowing a wide choice for high income groups and a tool to maintain parallel systems in operation for maintaining at least partial social cohesion. In terms of fading, the convergence of systems in terms of accepting the general objectives of health policy is a realistic possibility, although the real health care systems maintained and probably for a long period of time will maintain strong relation to specific local and national conditions and historical roots of the individual systems. Similarly, it is a common response to general problems of health systems, such as the aging population or an increase in the incidence of diseases of civilization. Tools that are chosen by individual systems are, however, differentiated. For this reason, the health policy documents define portfolio of tools from which individual countries may choose to implement "their" health care system.<sup>2</sup>

### Conclusion

The analysis shows that in those parts of the system, where the efficiency is determined, there is often an escape valve, which is mainly due to the existence of health care needs quite difficult to close. In this context, waiting lists, deficits of public health care insurance and not realized care - a sort of Achilles' heel of each model, are seen as a problem. Where in the system is laid emphasis on efficiency, which is seen as crucial for long-term stability of the system - that in itself also provides an escape valve, which, especially when inadequate compensation takes place and despite compliance with other required parameters of the system, leads to prevailing of significant drawback of particular system. This can then destabilize the system as a whole.

These different symptoms can be based on an analytical assessment viewed as manifestations of one and the same problem - the existence of a conflict of objective health care needs with economic and institutional limits and constraints.

It is important and useful to conclude, that:

- in the national health service system (V-V), there is a conflict of health care needs with setting spending and priorities at the central level, which as such causes

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<sup>1</sup> For the details in this regard see for instance the publication *Private health insurance in OECD countries*. Paris: OECD, 2004.

<sup>2</sup> E. g. in *Health 21 Health Program curriculum for all in the European Region of WHO*. Praha: MZČR, 2001 and *Towards high performing health care systems*, Paris: OECD, 2004.





creation of waiting lists and decisions about health care also outside the patient-doctor relationship,

- in system of public health insurance (V-S), the conflict of health care needs with financial possibilities of health insurance companies causes deficits and harms financial sustainability,
- in a market system (S-S), the conflict of the health care needs with the individual budget constraints and its social position causes not realized care and social inequalities in health care access and status.

Three basic approaches, which differ based on three underlying principles, can be traced in the typology of health systems. Specific practice of health systems complies with the theory the most on the example of the German model of social insurance, the market model of U.S. healthcare and UK National Health Service, showing the approaches used in different countries.

At the same time, each of these models emphasizes their strengths, such as:

- the possibility to set expenditures at the central level and conceptually build health policy in the British model (model V-V),
- autonomous position of the German health insurance companies and their mechanisms of negotiations with a pluralistic structure of health care facilities (model V-S),
- strong position of the patient who is able to pay in relation to the selection of "his or her" insurance plan, freedom in treatment and provision of health care in the U.S. system (model S-S).

Convergence between these systems can be seen in the fact that they more and more combine a use of the available pool of economic instruments, and even those that they are not fully "their own." We can however still clearly identify the basic mechanism by which a particular system is built primarily on and which it is based on. The practice of systems thus employs principles functionally identified in chosen typology and continues to be exposed to risks of identified specific failures. At the same time, there is still a great differentiation in the use of different instruments between countries or even their parts (USA). Every health system is in practice largely determined by the specifics of each country and shapes itself as a result of a number of historical, economic, institutional and other processes. This creative process - regardless of its actual results - is also the unspoken manual for health policy makers, who must (if they want to succeed) recognize and respect the existence of these processes.

From the findings of this article, the situation in the Czech Republic can be also seen in much clearer light. Based on our typology, the Czech healthcare system looks like almost a perfect hybrid between models V-V (predominant in hospital sector) and V-S (the outpatient sphere). Final public choice about its character was not made, ever continuing "public debate" does not bring any certainty to the future. There has been an attempt for move hospital sector from V-V to V-S model, too (with an exception of university hospitals), but it was not finalized. In conjunction with a relatively low share of health expenditure to GDP is the Czech system of financing health care, so to speak, 'on ice', and is awaiting its final anchor, but also find additional sources of funding,



because its current form is also associated with low (even in purchasing power parity) salaries of health workers.

Finally, I would like to outline one more consideration to the analysis results which could be subject to further examination. The Achilles' heels of health systems are generally seen as their failures, both by professional public and by common users of a system. Just witness the media attention on the waiting list in the UK, the unavailability of care in certain social groups in the USA or discussions about the Všeobecná zdravotní pojišťovna (VZP) deficits in 2006 in the Czech Republic. But the question is whether the frequency of these negative phenomena should be an impulse for health policy makers and they should see their presence as a kind of practical inverse quality monitoring implementation of the selected type of health system. In other words, whether it should be used rather as a criticism against the model itself and as an argument to shift to another model, or whether their rising occurrence in some country is necessary impetus to optimize its operation without changing its basics. That's a question not only for economists but also sociologists and political scientists - because a bad perception of those effects in the national economy and health and social policy, often leads to a rapid sequence of repeated attempts to reform health systems, often with forgetting principles and goals they are built on, rather than continuously drawn rational development of them.

### References

- BÉNARD, J. (1990). *Veřejná ekonomika I*. ČSAV: Praha.
- BOULDING, K.E. (1966). *The concept of need for health services*. Milbank Memorial Fund Quarterly, part 2.
- COOPER, M.H. (1975). *Rationing Health Care*. Croom Helm: London.
- CULYER, A., NEWHOUSE, J. (ed.) (2000). *Handbook of Health Economics*. Elsevier: Amsterdam.
- CULYER, A.J, MAYNARD, A. WILLIAMS, A. (1981). Alternative system of health care provision: an essay on notes and beams. In *New Approach to Economics of Health Care*. Martin Robertson: London.
- DONABEDIAN, A. (1971). *Social responsibility for personal health service*. Inquiry 8.
- European Observatory On Health Systems and Policies, Retrieved September 1, 2009 from <http://www.euro.who.int/observatory>.
- GOULLI, R, MERTL, J. (2004). Veřejné prostředky při poskytování zdravotní péče. Podbanské 04.05.2004 – 05.05.2004. In *Aktuálne otázky verejných financií*, Acta Facultatis Aeriai Publici: Univerzita Mateja Bela Banská Bystrica.
- GUITTON, H. (eds.) (1969). *Public Economics: An Analysis of Public Production and Consumption and their Relations to the Private Sector*. Macmillan: London.
- KREBS, V. A KOL. (2005). *Sociální politika*. ASPI: Praha.



- KŘÍŽOVÁ, E. (1988). *Rovnost ve zdraví (ekvita) v transformovaném zdravotnictví České republiky*, studie Hlávkova nadání: Praha.
- MAHIEU, R., GRIGNON, M., CHONE, P. (2002). Model regulace ve zdravotnickém systému-konkurence mezi operátory zdravotní péče, překlad R. Goulli a K. Vampolová. In Analytická, hodnotová a koncepční východiska zdravotní politiky I. Sborník 1/2002. IZPE: Kostelec nad Černými lesy.
- MERTL, J., VYCHOVÁ, H. (2007). *Úloha vzdělání a zdraví v ekonomickém rozvoji*. Národohospodářský ústav Josefa Hlávky: Praha.
- MOONEY, G. (1992). *Economics, Medicine and Health Care*, second edition. Prentice Hall: Essex.
- OECD (2009). Health Data 2008, OECD: Paris.
- OECD (2004). Private health insurance in OECD countries. OECD: Paris.
- OECD (2004). Towards high performing health care systems, OECD: Paris.
- SALTMAN, R. B., FIGUERAS, J. (1998). *Critical Challenges for Health Care Reform in Europe*. Open University Press: Buckingham.
- SAMUELSON, P. A. (1969). Pure Theory of Public Expenditure and Taxation. In MARGOLIS, J. D., GUITTON, H. (eds.): *Public Economics: An Analysis of Public Production and Consumption and their Relations to the Private Sector*. Macmillan: London.
- SUHRCKE, M., MCKEE, M., ARCE, R., TSOLOVA, S., MORTENSEN, J. (2005). *The contribution of health to the economy in the european union*. Health and consumer protection directorate-general. European communities: Brusel.
- WILLIAMS, A. (1978). Need – an economic exegesis. In Economic Aspects of Health Services. Martin Robertson: London:.
- WILLIAMS, A. (1997). Need as a demand concept. In Culyer, A.J., Maynard, A. (eds). *Being reasonable about the economics of health*. Edward Edgar Publishing: Cheltenham.
- WILLIAMS A. (1997a). Priority setting in public and private health care, In Culyer, AJ, Maynard, A. (eds). *Being reasonable about the economics of health*. Edward Edgar Publishing: Cheltenham.
- WILLIAMS, A. (1997b). *Selected Essays about the Economics of Health*. Oxford University Press: London.
- WILLIAMS, W. (2004, July 21) *Free Health Care*. Retrieved June 2, 2005 from <http://www.humaneventsonline.com/article.php?id=4551>.
- Zdraví 21 (2001). osnova programu zdraví pro všechny v Evropském regionu WHO. MZČR: Praha.



**ACHILLES' HEELS OF HEALTH CARE SYSTEMS**

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**Abstract:** The aim of this article is to research the organization of health care systems and their typical failures in relationship with the need for health care. It is based on extensive theoretical background from economics and social policy, where the concepts used have already been defined. It emphasizes the differences between public and private insurance, and the various models of health care. It shows waiting lists, deficits and not realized health care as inevitable attributes of particular model. While based theoretically, it pays attention to empirical evidence in countries that are the most similar to their theoretical incarnation, e. g. the British model of publicly financed government-owned health care facilities, German model of publicly financed private providers and the American model of privately financed private providers. Finally it discusses the question of convergence of health care systems and the possible way of solving the issues described.

**Key words:** health, modern society, health economics, health care financing, health policy, health insurance.

**JEL Classification:** I110, I180, H510

