Czech Health Care in Economic Transformation

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CERGE-EI, April 1994

Abstrakt

Zdravotnictví nyní představuje obížný ekonomický, manažerský i politický problém v mnoha ekonomicky vyspělých zemích. U nás, i když základní změny ve zdravotnictví byly již delší dobu zcela nezbytné, je tato situace komplikována tím, že současně probíhá transformace ekonomiky a proces privatizace. Velmi mnoho změn se odehrává současně. Jedním z vážných problémů je jak zajistit správný vztah mezi prokázanými potřebami a možnostmi ekonomiky. Potřeby obyvatelstva vyplývají z jeho zdravotního stavu, který není uspokojivý.

Základní trend prováděné transformace zdravotnictví považujeme za zcela oprávněný. Snaha provést některé změny co nejrychleji a to za situace, kdy v ekonomickém prostředí probíhá řada změn, vedla k tomu, že některé transformační kroky nebyly ve zdravotnictví dostatečně koncepčně připraveny.

To, že byl zaveden nový systém zdravotního pojištění bylo samo o sobě pozitivní. Zavedený systém má však řadu nedostatků, jichž jsme se mohli vyvarovat. Zejména zavedení platby za výkony jako výlučného systému úhrady od pojišťoven pro zdravotnická zařízení je z řady hledisek nevhodné. Motivuje zdravotnická zařízení k tomu, aby zvyšovala objem poskytovaných služeb bez dostatečného ohledu na kvalitu.

Je zřejmé, že bylo i ve zdravotnictví nutné přistoupit k privatizaci zdravotnických zařízení. Je však problematické, zda privatizační metody, jež se obecně používají v průmyslu a obchodu, jsou ty nejvhodnější i pro privatizaci zdravotnictví. Je nepochopitelné, proč se zde nevyužívá též formy neziskové organizace, a proč nebyly dosud pro tento organizační útvar připraveny dostatečné legální základy.

Důležitou část zdravotnického systému tvoří nemocnice. Ty dnes čelí mnoha vážným problémům a jejich privatizace bude mnohem obtížnější než privatizace malých zdravotnických zařízení. Probíhající změny ve struktuře pracovníků ve zdravotnictví nevytvářejí dobrý základ pro další privatizační kroky. Tyto změny ani nezlepšují ekonomiku těchto zařízení, ani nezvyšují jeho výkonnost.

Abstract

In many developed countries, health care is now the cause of difficult economic, managerial and even political problems. In the Czech Republic, where fundamental changes in the health care system were absolutely necessary and long overdue, this situation was further complicated by the process of economic transformation and privatization, in which many changes occurred simultaneously.

One of the major concerns of our health care transformation is the amendment of the shortcomings of our health care system within the confines of our economy. The needs of the population are a result of the existing health status, which is not satisfactory.

The basic trends of health care transformation were fully justified. But many changes in the economic environment, and the haste to change the existing situation might be the cause of some transformation being introduced without a sound conceptual framework.

The introduction a new health care insurance system was a positive act but owing to the factors mentioned above, this system has many imperfections and weaknesses that could have been avoided. In particualar, the introduction of fee-for-service as the exclusive system of payments by the GHIO to health care units is inadequate in many ways . This motivates the health facilities to increase volume of services without regarding the quality.

It was evident that it was necessary to discontinue the state ownership of health care establishments; it seems questionable, however, that methods of privatization commonly used in industry and business should also be the most suitable for health care organizations. It is difficult to understand why the type of non-profit organisations has not been applied here and why, up to now, no legal founding for such an organisation has yet been prepared.

Hospitals form a very important part of the health care system. They are faced with many serious problems, since changing the form of state ownership in the Czech Republic seems to be much more difficult than in the small scale health care units.

Structural changes in medical staff do not present a sound basis for further privatization steps. This process improved neither the economy of these facilities nor the efficiency of the Czech Republic’s health care system.

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PREFACE[1]

Health care now presents in many countries a serious economic problem. Improvements in diagnostic and therapeutic methods, medical equipment, and a relatively good and broad accessibility of outpatient and inpatient services, make it possible for more and more people to live longer and in better physical condition than before. Keeping people in relatively good health and securing longer average life expectancy is costly and overall expenditures connected with health care are steadily growing. Many governments face serious economic difficulties when struggling to maintain the quality of health care at the current level, to say nothing about its further development. For many of them this constitutes a problem, which is often more burdensome than some economic problems connected with classical industrial sectors.

In our situation, problems connected with the general tendency of rapid growth of health care expenditures have combined with problems attached to the inherited bad shape of health care and the process of economic transformation. Particularly troublesome are the problems of the privatization of health care facilities, of health care insurance, and of the resources and methods of health care financing.

We are convinced that the good work that has been done in the health care transformation so far has one vital weakness: without having a conceptual economic framework, a set of individual isolated problems have been solved with little hope of integrating the results into a useful and functional system. Our intention is not to discuss a partial economic problem of our health care system, but to approach the economic problems of this system as a whole.

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[1] This research in the economics of health care began at CERGE-EI in Spring 1993. In connection with this research a regular seminar was launched in Autumn 1993 and some reflections included here may have been influenced by discussions initiated at this seminar, for what we want to express our thanks to the participants.

1. Main reasons for the transformation of health care

The socialist experiment executed in Czechoslovakia after 1948 of course included health care. However, in the long run, it negatively influenced the health status of the Czech population. This development was not monotone. There was a difference between trends in the development of our health care system in the period approximately before and after 1960, which has been described as the "Czechoslovak miracle and decay" (Drbal, 1990). During the first period (up to the early 1960's) the quality of Czechoslovak health care improved. This was due to a relatively high standard of prewar and postwar medical care, combined with newly enforced centralization of resources and coordination. The decay, which arose in the second period, was caused by rigid directive management together with a loss of motivation and an absence of competition within the health care system. In addition to this, an ordinary citizen was progressively losing personal responsibility for their own health. This was accounted for by totally free health care and by the inability of citizens to influence the quality of health care provided for them.

Today, when attempting to transform our health care system into an effective and economic one, we have to bear in mind the events that led to this transformation and the goals we strive to attain.

1.1 Reasons originating from the health status of the population

As an introduction it is worthwhile to mention that the health status of the Czech population is only partly influenced by the quality of health care (only by about 20-30%).The main factors contributing to health status are lifestyle (50-60%) and the environment (about 20%). This is, of course, a general statement (see for example Návrh nového systému... 1990, Analýza současného stavu..., 1994).

No appropriate method is generally agreed upon to characterize the health status of the population and the quality of health care is generally agreed upon. Some characteristics that are often used instead include mortality, infant mortality, average life expectancy, etc. Average life expectancy seems to be the most practical and reliable method and is generally accepted, despite ongoing criticism (critics maintain that the average life expectancy of an individual says nothing about the quality of that individual's health; people may live a long life even if they are permanently crippled by a serious disease). Average life expectancy describes the average number of years which one is expected to live at the age of x years. The commonly used index is for x = 0 (average length of

life at birth). Below we compare the development of these characteristics in Czechoslovakia, France and the U.S.A. (see Papeš 1992, "Možnosti..").

Table 1: Mortality, infant mortality and life expectancy in the Czech and Slovak Republics, USA and France

	average 1946-48		average 1960 - 1962			average 1989 - 1991		
	ČSR	USA	USA	France	ČSSR	USA	France	ČSFR
mortality [1)]	14	10,1	9.4	10.7	9.2	8.6	9.3	11.7
infant mortality [2)]	110	32,7	25.2	27.1	22.7	9.4	7.3	11.3
life expectancy M	60	64,5	67.6	67.2	67.6	71.6	73.1	67.3
W	68	69,8	74.4	72.9	73.1	78.6	81.5	75.5

[1)] Deaths per 1000 inhabitants
[2)] Deaths per 1000 live births
Source: "Možnosti diagnózy...", 1992.
Historical Statistics of the USA, Colonial Times to 1957, US Dept. of Commerce, 2nd Printing, 1961

The improvement of given characteristics in the early 1960's, in comparison with the postwar period, was significant (although the introduction of modern drugs must also be taken into account). For men life expectancy increased by 7.6 years, for women by 5.1 years. At that time, Czechoslovakia was in an even better situation than some Western countries. However, in the following years the trend, in comparison for example with the US, was very unfavorable; while the life expectancy of men in the US increased during this period by 4.8 years, in ČSFR it decreased by O.3 years. The respective growth by women in the US was 4.9 years, while in ČSFR it was only 2.4 years.

Mortality and life expectancy are highly influenced by individual morbidities. It is necessary to study these before designing the new shape of health care policy which is to meet the needs and demands of the population.

Information on morbidity of population is to be found in following statistics:
- Children under dispensarisation,
- Incapacity for work (these data include only registered incapacity for work of employed inhabitants, we have no appropriate data about the unemployed part of population),
- Causes of invalidity and partial invalidity,
- Causes of death.

We condensed some data from these statistics into following review, according to International Statistical Classification of Diseases (9 - ICD).

Table 2: Morbidity status of the population in the Czech Republic in 1991.

9 - ICD	dispensarity diseases in children		cases of incapacity for work per 100 000 workers, MEN		cases of incapacity for work per 100 000 workers WOMEN		causes of new partial invalidity		causes of new permanent invalidity		mortality causes of death	
	No.	%	No.	%	No.	%	M No.	W No.	M No.	W No.	M No.	W No.
001-139 inf. and parasit.	1231	0.3	1749	2.0	1946	1.8	2.5	0.8	2.8	0.9	4.5	4.1
140-239 neoplasms	2698	0.7	477	0.5	1375	1.3	3.9	6.3	54.4	73.5	315.8	235.2
240-279 endo., metab., imm.	17845	4.4	625	0.7	545	0.5	10.7	10.2	20.5	18.6	18.4	26.3
280-289 blood and hemopoet.	2223	0.6	67		150	0.1	a				1.8	1.4
290-319 mental disorders	20205	5.0	610	0.7	1261	1.2	11.0	11.3	59.9	54.6	4.1	0.9
320-389 nervous and sense	145501	36.2	2929	3.4	3050	2.9	32.4	31.5	32.7	38.6	10.8	9.7
from them:												
360-379 eyes	113432	28.2	1379	1.6	1240	1.2	7.2	5.7	6.9	9.1		
380-389 ears	5672	1.4	872	1.0	838	0.8	8.4	4.4	1.4	1.1		
390-459 circulatory sys.	10542	2.6	2944	3.4	3326	3.2	95.9	86.6	234.3	118.3	683.4	713.0
460-519 respiratory sys.	60313	15.0	39087	44.7	51562	48.9	33.2	10.1	54.4	19.6	66.0	39.4
520-579 digestive sys.	4215	1.0	7018	8.0	7656	7.3	12.8	4.2	20.9	10.0	66.0	37.6
580-629 genitourinary sys.	25233	6.3	1771	2.0	6754	6.4	3.3	3.8	7.4	7.6	26.9	37.6
630-679 complic. pregnancy	1690	0.4			4172	4.0	a					0.2
680-709 skin and subcut.	31861	7.9	2648	3.0	2607	2.5	2.6	2.3	2.1	2.8	0.2	0.5
710-739 musculsceletal sys.	32793	8.2	11625	13.3	12729	12.1	90.5	101.8	82.8	96.4	0.4	0.9
740-759 congenital anomalies	45247	11.3	36		44		3.2	5.2	3.2	5.2	5.4	3.7
780-799 ill-defined cond.			423	0.5	766	0.7	a				15.2	13.4
800-999 injury, pois.in emp.			3983	4.6	1609	1.5	55.8	12.2	62.4	18.9	106.9	68.8
800-999 injury, pois. unemp.			11283	12.9	5761	5.5					a	a
1 - 999 T o t a l	401597	100.0	87384	100.0	105471	100.0	361.2	244.8	645.5	472.5	1319.7	1177.2

Source: Zdravotnická ročenka, 1993

The main chronic childhood health problems are eye disease (28.2%) and diseases of the respiratory system (15%). Congenital anomalies are responsible for 11.3 % of continual medical follow-ups in the child population. The economic consequences of these anomalies, and the costs connected with the medical follow-ups, are significant.

Among the leading causes of incapacity to work are respiratory diseases [45 resp. 49%] and out of them 92% cases represent acute inflammation of upper airways. For men, injuries are the second most frequent cause for incapability, representing 17.5%. In contrast to that, only 7% of women suffer from injuries. Diseases of musculoskeletal system are on the third position in men with 13% and on second in women with 12%.

Among the leading causes of death, diseases of circulatory system dominate with 51% resp. 60.6% (this number increased during the last 30 years), followed by neoplasms with 23.9% resp. 20%. The third most frequent cause of death is injury occurring at the work place - 8.1% resp. 5.8%. Diseases of the circulatory system prevail in causes for permanent invalidity.

A comparison with other countries is useful.

Table 3: Causes of death in chosen countries (Data concern year 1989)

	malignant neoplasms	circulatory system	respiratory system	injury poisoning
Bulgaria	13.8	61.5	5.9	3.6
France	26.2	33.8	6.7	6.4
Japan	26.5	37.1	12.2	3.9
Canada	26.9	40.7	8.5	4.9
Netherlands	27.5	40.1	8.1	3.0
FRG	24.4	49.1	5.9	2.9
Switzerland	25.7	44.0	8.1	5.5
USA	22.4	44.9	8.6	4.5
ČSFR (1990)	20.9	55.2	5.6	5.0

Source: Statistická ročenka ČSFR, 1992

The main killers are diseases of the circulatory system and malignant neoplasms. They are responsible for 60% - 70% of deaths in developed countries, while in Czechoslovakia for 76.1%. Circulatory diseases cause 55.2% of deaths in Czechoslovakia, which is more than in developed countries.

The diseases shown above have a negative impact on the life expectancy index, which was used by WHO to determine tasks for all European countries - in

order to increase the average life expectancy up to 75 years by the year 2000 (M and W combined). West European countries are fulfilling this challenge, whereas the Central and East European countries are having difficulties in attaining this goal. The Czech Republic is no exception to this trend. (see Table 4).

Table 4: Life expectancy in chosen countries

State	Year	M	W
France	1989	73.1	81.5
Italy	1988	73.3	79.9
Japan	1990	76.2	82.5
Canada	1989	73.7	80.6
Luxembourg	1989	71.3	77.3
Netherlands	1989	73.7	80.1
Austria	1990	72.6	79.2
FRG	1989	72.6	79.2
Switzerland	1990	74.0	81.0
USA	1988	71.6	78.6
Bulgaria	1990	68.2	74.9
Yugoslavia	1989	69.0	74.8
Czech Republic	1990	67.5	76.0
Hungary	1990	65.1	73.8
GDR	1989	70.1	76.4
Poland	1990	66.5	75.6
USSR	1990	64.2	73.9

Source: ČSFR Statistics Yearbook 1992

Life expectancy in the Czech Republic is well behind developed countries, and even behing certain groups of former socialist countries (ie, men in Bulgaria and Yugoslavia live longer than those in Czech Republic).

Table 5: Development of life expectancy in the Czech and Slovak Republics

	1954	1959	1964	1969	1974	1979	1984	1990
M	64.52	67.17	67.51	66.84	66.56	67.15	67.12	67.5
W	69.32	72.34	73.44	73.49	74.15	74.15	74.21	76.0

Source: Zdravotnická ročenky ČSSR a ČSFR, ÚZIS

The life expectancy of men in the Czech Republic has not significantly changed in the last 25 years. Due to the existing the health status of inhabitants, one cannot expect dramatic change within the years remaining before WHO's target date of the year 2000.

In 1989 the average life expectancy for men in 27 European countries was 74.9 years, compared with 73.2 years in 1980 (an increase of 1.7 years), as compared with an average life expectancy of 67.5 years in the Czech Republic in 1990 (an increase only of 0.35 years in comparison with 1979 figures).

The health status of the Czech population is unsatisfactory in comparison with the health status of the population of Western countries. As mentioned before, the health care system cannot be made solely responsible for the health status of the population. Lifestyle, the ecological situation, and other factors also have to be taken into account. Nevertheless, there is no doubt that health care influences the health status of the population and the average lifespan. In order to instigate a significant positive influence we must:

- improve the quality and accessibility of health care,
- increase the effectiveness of health care services,
- encourage increased responsibility of individual persons for their personal health.

Such changes would also have economic consequences. On the one hand, there are medical treatment costs, sickness allowances, invalid stipends, pensions, etc. On the other hand, there are potential incomes brought about by the decrease in morbidity, invalidity, and the absolute increase in the number of people of productive age.

Let us presume that in the future people in our country will retire at the age of 65, and that the average life expectancy will approach the same level as in Western countries. If we select data from 1991 this would mean that we are now losing about 2.37 million man-years annually. Though it is extremely difficult to assess the economic impacts, this is a case for serious analysis in the future.

1.2 Economic reasons for the transformation of health care

a) Growing expenditures in health care

During recent decades, health care expenditures in all developed countries rapidly increased (see Feachem e.a.,1991, pp.31-32). If this trend continues at the same rate, health care expenses will become unbearable for many countries. In addition to this, the existing situation conceals further complications in two

ways:

- In some cases expensive high-tech medical treatment is provided. However, this is granted only to a very limited part of population. If the same treatment was given to all those who needed it, the expenses would ruin the society.

- There are often (even in the same countries) major shortcomings in offering only basic medical treatment to the general population.

Each developed country analyzes the causes of growing health care expenditures and seeks measures to limit this in the future. Further problems arise in deciding how large a part of their GNP they are willing to devote to health care, how to allocate it, and how and by which means it should be allocated.

In 1989 Czechoslovakia spent five percent of its national income on health care. Within the health care sector there was a complete state monopoly, and the sector was entirely dependent on financial means assigned to it by the state budget. Public health care services were paid entirely by the state.

In accordance with other economic sectors, the Czech health care system (especially during the last twenty years) developed extensively. In accordance with the state plan, the number of physicians automatically increased each year. However, there is no evidence to indicate a meaningful relation between the growing number of physicians and the quality of health care provided.

Interviews with health care managers and experts certify that the administrative approach to the allocation of financial means for investments and medical equipment from central financial resources resulted in wastefulness. Political strength and personal contacts frequently played a larger role than objective necessity. This resulted in discrepancies between the level of the technical implements in different health care facilities and descrepancies between different localities.

After November 1989, the increase of health care expenditures accelerated.

Table 6: growth of health care expenditures in the Czech Republic

Data in bill. Kčs (current prices)	1986	1987	1988	1989	1990	1991	1992	1993
Non investment expenditures	20,0	20,9	22,1	23,6	25,9	32,6	37,0	
Investment expenditures	1,7	2,0	2,6	2,7	4,1	5,6	6,6	
a) Total health expenditures	21,7	22,9	24,7	26,3	30,0	38,2	43,6	61,8
(of that paid by GHIO)							32,4	53,5
b) Gross material consumption fund	286,5	297,4	310,2	321,6	354,5	413,3	599,9	741,1
c) GDP	442,5	459,5	453,0	434,9	471,3	596,0	803,3	923,1
Relation a/b (%)	7,6	7,7	8,0	8,2	8,5	9,2	7,3	8,3
Relation a/c (%)	4,9	5,0	5,5	6,0	6,4	6,4	5,4	6,7

(GHIO = General Health Insurance Office)
N.B.: Data on GDP 1986 - 1988 estimated on basis of data on national income of , SR and FSR from Statistical Yearbooks.
Data on GDP 1989 -1991 from The Statistical Yearbook of the Czech Republic, 1993. The data on GDP and Gross non-material consumption fund for 1992 and 1993 from non-official sources.
Other data are from: Zdravotnické ročenky ČSSR, ČSFR a ČR, ÚZIS.

The situation in some Western countries is illustrated in the following table.

Table 7: Growth of health care expenditures in some western countries

	1960	1965	1970	1975	1980	1987	A	B
FRG	14.2	23.5	37.3	80.4	117.1	161.8	11.1	4.7
France	12.7	25.6	46.2	102.0	212.2	450.3	15.1	11.3
USA	26.9	41.9	75.0	132.7	248.1	500.3	11.7	10.5
GB	1.0	1.5	2.3	5.8	13.3	24.8	13.8	9.3

Data shown in bill. of national currency,
A represents an average annual growth from 1960 to 1980 in %.
B represents the average annual growth during 7 succeeding years in %.

Source: Poulier, 1989

One of the more significant factors of this development is the increase in hospital costs. In the FRG, this represents about 40% of total health expenditures, in France about 46%, in the US 47%, and in the Czech Republic more than 30%. The development of these costs is shown in the following table (in bill. of national currency).

Table 8: Growth of hospital costs in chosen countries

	1960	1965	1970	1975	1980	1987	A	B
FRG			14.2	31.7	44.7	63.8		5.2
France	4.4	9.3	17.4	42.5	101.6	207.0	17.0	10.7
USA	9.6	16.0	32.7	62.5	122.0	235.3	13.6	9.8

Data in bill. of national currency
A represents an average annual growth from 1960 to 1980,
B represents the average annual growth during 7 following years.

Source: Poulier, 1989

b) Lack of motivation of health care staff

Approximately 4.7 % of the Czech work force is employed in the delivery of health services. However, their income situation, in comparison with other sectors, is not favourable.

Table 9: Average earnings in health care

Personnel	1986	1987	1988	1989	1990	1991	1992	1993
all (in 1000)	231	234	238	242	242	231	215	
av. salary in health care Kčs/month	*2872 **2760	2911 2813	2948 2847	3000 2902	3287 3091	3921 3712	4802	
av. earnings national economy	2964	3026	3095	3170	3286	3792		
relation av. earnings health care/national economy (%)	93.1	93.0	92.0	91.5	95.1	97.9		

* Zdravodnické ročenky 1988=93, ÚZIS
** Statistické Ročenky ČSSR a ČSFR, 1988-92

There may be some comments that this data may be biased due to the omission of possible side payments. This question is (and especially was) often discussed in the public and sometimes in the press; but, of course, there are no data regarding these payments. There even seems to be no basis for even a very soft estimate of possible average amounts. On the basis of interviews with both medical staff and patients, we can assess that these payments are extremely irregular and that there are health care establishments where this seems to be a habit and others where this might be only an exception. The same is probably true with medical staff members. The "rewards" from patients very often have a non-pecuniary form (small gifts); and importantly, there seems to be something resembling an institution of "reciprocal favors" (this was very popular especially in previous years when there was a supply shortage of certain services and products). The same was also true of other services.

In accordance with administrative planning, the number of health care personnel increased gradually, and they were paid low, but granted, salaries. Full state monopoly in the health care sector, together with the practical impossibility, for patients to choose their general practitioner, led to a loss of motivation and strong dissatisfaction of health care workers, namely among physicians. They strongly requested a thorough reform of the health care system.

c) Socio-economic aspects

Another cluster of economically relevant problems was linked to the relationship between physician and patient which developed during the last several decades.

A visit to a physician was often prompted not by earnest illness, but by the necessity to secure some certificate which, by government decision, only a doctor was entitled to provide. To a certain extent, the physician had to play the role of a state control agent, taking care that not many relatively fit people would be "absent from the working process" because of health concerns, without good reason. Because of these activities and the administrative burden, the relation of the general practitioner to the patients was often a formal and impersonal one, the concept of "family doctors", that was known before the second world war, vanished.

Physicians were sometimes manipulated into the role of "dispatchers," sending their patients to different specialists for further diagnosis and therapy. Sometimes they willingly accepted this role, and quickly transferred slightly more serious cases to hospital (otherwise they might have created a new unnecessary problem, requiring additional responsibility, but having no

additional effect).

Physicians were not motivated (except by individual private responsibility and/or personal interest) to treat patients intensively and at a high quality level, as salaries did not depend on the quality of care.

The possibility for unprivileged patients to influence the quality of their medical treatment was extremely limited. This quality was mostly accidental and influenced by whether they were fortunate enough to find a good, conscientious physician or whether their medical case was deemed interesting.

State financed health care seems to be one of the main reasons why individual responsibility for health during the past years notably declined; this is a situation not commonly found in Western countries where the individual feels much more responsible for their own health. In addition to that people did not see any connection between taxes withheld by state to pay for their health care and social services and the health care they obtained. Because of this they also did not feel entitled to fair medical treatment as they supposedly were receiving it "free of charge."

1.3 Efforts to improve health care systems in other countries

It seems that one of the main problems when trying to improve the economic aspects of a health care system is to identify the proper relationship between the four main actors in the system: the consumers of health care services; the providers of health care services (primary level - outpatients; secondary level - inpatients); the payers of performed services (e.g. the patient, the health insurance agency and other resources); and state institutions as control agents. Individual health care reforms differ mostly in the way in which they try to conceive these relations.

In practice the following systems are evident (Hurst 91):

1. direct payments for performed services
2. private, voluntary health insurance
   classical private health insurance (e.g. Blue Cross in the USA)
   a system of prepaid care (the Health Maintenance Organization, Preferred Provider Organisations, the USA):
   private integrated model (staff model HMO, USA)
3. obligatory, public insurance
   national insurance systems (e.g. the FRG, Medicare in the USA, performed

services are paid to the provider directly by the health insurance agency);
national (federal) system of obligatory health insurance in close contact with private health insurance agencies which form, along with health care providers, one unit (Medicare in the US);
performed health care services are paid to the provider directly by the patient;
the health insurance office reimburses the patient (fully or, more often, partially).

Different combinations of these basic approaches are of course possible. Each of these systems has advantages and disadvantages and can be subject to criticism. Individual countries repeatedly look for convenient health care systems which would ensure the goals shown above and would not lead to unbearable costs for individuals and/or society.

In the last decade, many countries exhibited a determination to improve existing health care systems. Countries try to achieve the following goals, though they assign different importance to them (Hurst, 1991): to secure adequate and attainable health care services; to protect the income of the insured person; to achieve macroeconomic effectiveness; to achieve microeconomic effectiveness; to guarantee free choice to consumers; to guarantee legitimate autonomy to health care providers.

Considerable efforts to transform the health care system have been demonstrated in the last few years, especially in the United States and United Kingdom (see literature, e.g.: Health Care Reform plan, 1993; Lundberg, 1992; Bartlett, 1994; Salter, 1994 and others). But it is still too soon after the changes to make a good evaluation of the results, as many supposed changes are only in the state of projects.

2.Process of the health care transformation in the Czech Republic

2.1. The First Phase of the Transformation and its Legal Founding

The process of the transformation of our health care system began in 1990. At the end of 1990, a document called the "Project of the New System of Health Care" was prepared by the MOH and accepted by the Government. The project defined 13 principles and 19 steps essential for establishing the New System. All are exclusively concerned with the health care system. Problems of improving the health status of the population were not discussed.

The important principles were the demonopolization of the health care system, the introduction of mandatory health insurance, the free choice of physician and of health care facilities, various forms of ownership of health care facilities, independence of health care facilities within legal statutes and conditions set by contracts, equal and accessible health care (at a "standard" level) for all, etc.

The process of demonopolizing the health care service began in 1990 and proceeded through 1991. A variety of different health care units appeared as a result of the abolishment of the previous District Institutes of National Health. Health services began not only to be offered by state organizations, but also by several private and non-profit providers.

At the end of 1991 and the beginning of 1992, a series of Acts connected with the transformation of the health care system were accepted.[2]

A problematic and continuous discussion concerning different ways of payments for health care services began early in 1991. Two major concepts were discussed:

- the concept "fee-for-service" for all types of health services,
- the concept favoring a combination of capitation with a "fee-for-service" scheme.

In Spring 1991 two projects (one for each of the concepts shown above) began to be prepared by two different task forces. In a further development, the Ministry of Health decided to introduce the fee-for-service concept. At the end of 1991 the GHIO was founded. It was decided that a point price-list for health care services would be prepared.

In such a price list, each type of medical service and medical operation is evaluated by a certain number of points and a certain amount of direct material costs connected with this operation. About 6000-7000 types of such medical operations have been defined, and a list of these is constantly updated. The price of a point for a certain time period is set by the Insurance Office (e.g., for 1994 the GHIO set the price of 1 point at 0.55 Kč and promised to keep this price

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[2] Main accepted Acts concerning the health care transformation:
- General Health Care Insurance Act (No. 550/91),
- General Health Insurance Office Act (No. 551/91) (GHIO),
- Health Care in Non Governmental Health Care Facilities Act (No.160/92),
- Sectoral, Professional, Corporate and other Health Insurance Offices Act

steady during the whole year - in 1993 this price was changed twice). This price, and the number of points for services rendered, together with the resulting material costs, form the basis of fee-for-service payments from the Health Insurance Offices to the health care establishments and general practitioners.

The first fee-for-service price list, prepared by the original task force at the beginning of 1992, was found to be unsatisfactory and was rejected by the MOH on the basis of expert reviews (the number of points designated to individual health care operations was found to be unbalanced). A revised version of this list was published and accepted in May 1992, but not without persistent resistance from medical staff regarding the published point evaluation of individual health care services.

In 1992, two drafts of bills concerning the general concept of public health care were prepared. In these two drafts, two contrasting approaches to the public health care system were suggested. The first approach followed the traditions of public health care as it had been developed and introduced in our country before the First World War, and which in those days, brought good results. The second draft followed the main ideas of the law concerning "Care for People's Health" (Act No.66/1966), especially with regard to the centrally controlled territorial health care net. These bills were not accepted. Neither was found to be sufficiently developed for implementation and, in addition to this, the MOH did not seem to have a clear health care policy which would allow it to decide properly.

During the first half of 1992, the privatization of health care facilities began. Several day units (patients who come in the morning for medical treatment in a bed department during the day and return home at night) and several small out-patient units have been privatized and several hospitals were returned to the church. But all this represents only a very small share of all health care facilities.

In the first half of 1992 a first basic list of health care units suggested for privatization was prepared by the MOH. After the June 1992 elections, pressure for the privatization of health care facilities increased. There was an apparent tendency to proceed in the health care sector as in the industrial or business sectors.

From Fall 1992 to the end of 1992, privatization projects for health care units that should have been privatized in the "first wave" were drafted. However, there was no decision made on these projects at that time. It was apparent that

during 1992 and most of 1993, the transformation process in health care lost much of its intensity and original vigor. A repeated change of the Minister of Health care (since the beginning of 1990 four Ministers have been in this office - partly due to some political shifts, to criticism from the side of corresponding parliament committee - led to periods of low activity of this Ministry and to changes in some approaches to the health care transformation.[3]

In Spring 1993 it was decided (for privatization purposes) to divide health care facilities in to three categories: A, B, and C. The main features of these categories are as follows:

A: The new proprietor (buyer) is obliged to:
use the property for providing health care for at least a further 10 years after the purchase (for a longer period in individual cases);
close a contract about providing health care with health care insurance offices, if they are asked by an office to do so (the conditions of such a contract are included in the privatization project):
close with the corresponding institution of state administration (usually with the regional administration) a contract about providing public health care.

B: The new proprietor (buyer) is obliged to maintain a defined level and structure of provided health care. Health care services are not permitted to drop below this limit. Activities exceeding this defined level are not limited by the contract. Other conditions are the same as with category A.

C: Health care facilities entering in this category are divided into:
facilities that will never be privatized (because of executing some functions in state administration or health control),
facilities that will not be privatized in this period, because the state is still interested in participating in their operation,
facilities that are not included in this privatization wave, (here are embraced, facilities ensuring university education and some large or special health care establishments).

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[3] The main legal foundations for privatization in health care were formed by:
- Act No. 92 (1991 Sb. (Federal) and No. 171/1991 Sb. (ČNR) constituted the base for privatization projects,
- Gov. decision No. 137 from 24. 3. 1993 defined categories of health care facilities for the purpose of privatization,
- Act NO. 210/1993 Sb. which was modifying Acts No. 92/1991 Sb. and No. 171/1991 Sb.
- Govern. Decis. No. 568 from October 6, 1993 concerning further strategy in privatization.

At the beginning of November 1993, 622 units were approved for privatization.[4] From this, 462 units were supposed to be sold directly, 65 in public competition, 31 in non-public tender or through the "envelope method" and 63 transferred to municipalities without payment.

Large health care establishments were not included in the first list of health care facilities to be privatized. They will be privatized later, when it will be possible to utilize experience gained from the first phase of health care privatization.

Late in 1993, the transformation activity of the MOH regained intensity. In February 1994 a document:" Analysis of the Present State and Goal Outline of Transformation of Health Care in the Czech Republic" (Analýza současného stavu..,1994) was drafted by the MOH and submitted to Parliament. This document suggests that the first phase of health care transformation is concluded and that we are now entering the second one.

According to the MOH Document mentioned above, by the end of 1993 there were 17,173 health care facilities and health care offices in the Czech Republic, of which 2559 were state owned. Vast privatization of primary health care has already taken place. At the end of 1993, about 90 % of general practitioners and about 70% of pediatricians and adolescence care physicians had been privatized. Private health care offices are often only served by one general practitioner and one nurse. Hence such a large number.

The number of health care facilities privatized in the period September - December 1993 is shown in table 10. (from Analýza současného stavu..., 1993)

[4] It is practically impossible to say (in number of such units) how large a part of the whole health care system this represents. Such a health care unit is an entity used only for administration connected with privatization. If a health care establishment is privatized as a whole it forms but one unit. If the same establishment is, when privatized, divided in four parts which will be owned by four owners, it corresponds to four units.

Table 10: Number of privatized health care facilities from September to December 1993, divided according to the method of privatization

Category	Method	September	October	November	December	Total Number	1000 Kč
A	direct sale	49	55	57	68	229	
	of that:						
	non public selection	1	2	3	4	10	
	transfer to municipality	11	12	13	19	55	
B	direct sale	16	20	24	39	99	
	of that:						
	non public selection	1	1	2	3	7	
	transfer to municipality	2	3	5	14	24	
T O T A L		78	90	99	140	407	
from that:	direct sale					328	694,692
	non public selection					17	56,000
	transfer to municipality					79	120,000

Source: "Analýza současného stavu...", 1994

Table 10 shows the privatization process, but in a short period of about four months (practically the privatization activity under the current Minister of Health) and from the viewpoint of the MOH.

A more detailed view of this process is shown in the following data obtained from the Ministry for Administration of National Property and Privatization (this data reflects the situation on March 31. 1994).
(Součková, The State in Health Care Privatization..., 1994).
5419 privatization projects concerning 644 health care facilities have been submitted together. The decision-making process concerning their privatization is as follows:

Table 11: Some Characteristics of the Privatization Process

	of privatization projects	of privatized facilities	privatized property (in mill. Kč)
submitted	5419	644	
examined	1450	193	10078,227
approved	597	172	
remains	4187	451	

To privatize one health care facility there were on average
submitted 8.4 projects
examined 7.5 projects
approved 3.5 projects

The average value of the approved privatization projects was 16,881 mill. Kč. The average value of health care facilities that were approved for the privatization was 58,594 mill. Kč.

Within the 172 health care facilities that were approved for privatization, 1611 health care units were defined.

The following privatization methods were used:

	Number	Share in %
Direct sale	1193	74.1
Public competition	132	8.2
Property transfer without payment	232	14.4
Public auction	16	1.0
Transformation to stock companies	38	2.4
Total	1611	100

During the first three months of 1994, the private selection of a buyer was used in 17 cases.

2.2 Main shortcomings of the accomplished transformation steps

Almost four years have elapsed since the first transformation steps within our health care system were undertaken. Therefore, it is possible to try to present some preliminary evaluation of the results.

Although the concept of a transformation of health care was declared in the "Project of the New System of the Health Care" in December 1990, this project was only partially implemented due to a lack of well defined transformation goals or a clear conception of the transformation steps. A good strategic management of this process did not exist.

The past four years revealed that health care transformation constitutes a more complicated process than was previously anticipated. Many sides taking part in the transformation process were pursuing their personal interests and it was not always easy to identify an appropriate decision, especially when there was (and still is) a lack of information and coordination.

The lack of overall goals and of coordination sometimes resulted in inconsistent decisions made about isolated problems. An effort to implement suggested transformation changes quickly, and without corresponding preparation, led to mistakes which have to be mended now.

There were serious imperfections in the conception of payments for the health care services by Health Insurance Offices (e.g. long delays in payments for rendered services, small differentiation between payments to technically well equipped and poorly equipped hospitals), as well as in privatization steps (duration and large time lags between the individual steps).

The fee-for-service system of payments, without efficient control, strongly motivated physicians and health care facilities to increase the bulk of their services without much respect for their quality. Table 15. in Section 3. shows that the number of registered points within one year (3. Quarter 1993/3.Quarter 1992) increased by 20.4%. This resulted in a devaluation in point value and, as a feedback, stimulated physicians to report even more activities. The physician who is on the health care market in a much stronger position than the patient seeking help. When the physician recommends some additional treatment, the patient is not capable of properly judging whether this treatment is necessary and useful or not and therefore has to trust the physician. The interests of health care providers strongly overpower the interests of health care consumers.

Health care services are evaluated by means of points-per-service (and always temporary fixed fee-per-point). The Quality of this evaluation is lacking in many respects. The list of various types of services with point evaluation was prepared in a relatively short period of time, and it is therefore quite natural that it could not be well tested. Therefore, some point evaluations are for the health care facilities are more advantageous than others. There is always some risk that the income of GHIO will not be able to cover the costs of health care facilities for supplied services, and that these services will exceed a certain amount and acquire a certain structure. Because of this, the GHIO is very reluctant to pay accounts for supplied services presented by the hospitals and this often causes serious difficulties. In addition to this, the existing fee-for-service method of payments in the accepted form directs money flow preferentially to primary care and into small health care facilities (experts assume that less complicated treatments and services, using relatively less expensive technical means, are better rewarded within existing system than the more complicated, highly specialized and more expensive ones).

Similar to the physician-patient market relationship mentioned previously, is the relationship between health care facilities and health insurance offices. However, the difference is that health care providers are the weaker ones. The contracts between the health insurance offices and the health care providers are very much influenced by the extremely strong position of the health insurance offices.

Also, there is very low or almost no control of health care insurance agencies because the accepted bill on health insurance offices does not offer much space for this. Last year gave rise to deformed competition among the insurance agencies, which concentrated first on securing insurers with high average income. Differences in point value appeared, which may have positive but also negative results (it is too early to make conclusions).

We think that it was a mistake to create a side by side health insurance fund and social insurance fund. Health care services for the patient are paid from the health insurance fund. The payments sent to them during their illness (when they do not receive their wage or salary) come from the social insurance fund. In some cases there exists a choice between a brief intensive treatment or a prolonged less intensive treatment. In the first case, it is mostly the health insurance fund which has to pay for the cost of the treatment, and in the second case it is mostly the social insurance fund which bears the cost of the patient's incability to work. When the patient is inclined to stay at home longer than is necessary, the physician often agrees as the payments from the social insurance

fund interest him much less than payments from the health insurance fund. The possibility of merging both funds in the near future is already being discussed. In many countries, these two activities are served with one fund. The separation of social and health insurance funds does not create good conditions for an economic and well allocated use of resources.

The privatization process of the health care system mechanically duplicates the approaches used in business and industry. Nevertheless, the administrative procedures used in privatizing industrial and business enterprises might not always be suitable here. The character of health care facilities is different and an inclination to choose, from potential buyers, the buyer with the highest offer might not always be the best one. Attaining the highest profit is not always the best goal for health care facilities, and those who offer the highest bid often strive for such profit.

There is no sufficient effort to draft organizational forms that might be more useful for privatization in this sector and still respect its specific features. It is difficult to understand why we encounter such repeated delays in forming legal foundations for non-profit organizations which seem to be, in the case of some hospitals and other health care facilities for health care consumers and health care providers, more advantageous than any other type of organization. It is more than a year since the first drafts of the main principles of a law on non-profit organizations were prepared, but its discussion in parliamentary committees and in government has been repeatedly postponed.

It has been a mistake of the past four years that at top management level there has been no distinction made between the operative management and strategic management of the health care transformation. As the management concentrates mainly on operative problems, conceptual problems are neglected. The existing division of labor in our top health care management is still strongly influenced by the past. Previously, top management decided about manifold operative (even minor) problems. There was not much need for conceptual or strategic decision making, as this was mostly done on a high party level.

An extremely serious problem is the lack of a good information system concerning the health status of the population, services rendered by health care facilities and the cost of these services, the situation in health care, the allocation of financial resources, etc. Most of this information is now concentrated at the GHIO and is inaccessible to others.

No one was, or is now, able to sufficiently identify accurate costs per-service,

even when the whole financing of health care facilities is based on fee-per-service payments. To construct an entire system based only on estimates of probable costs is unwise and dangerous.

3. Main problems that health care transformation faces today

3.1 Problem of quality, productivity and efficiency of health care

The MOH is interested in establishing a system of quality standards for health care facilities (beginning with primary health care up to very specialized health care) which should be compatible with the systems used in Europe and the USA. (See: Analýza...,1994).

This same interest represents problems of productivity and effectiveness in health care. In order to evaluate them, proper indicators have to be defined. For example, in the case of hospitals such indicators have to appropriately describe:

- the relation between the structure of hospital activities and its receipts
- the utilization of capacities, namely beds
- global productivity of physicians
- global rentability of hospital.

Key indicators of the improved efficiency of health care establishments are:

- declining length of stay
- shift from inpatient to outpatient services
- an acute increase in in-patient care
- profitability

In the following table we use some of these indicators (so far, not all of them are attainable) for comparing our hospitals with similar ones abroad.

Table 12: Some characteristics of Czech and foreign hospitals

	Czech Republic 1992	F R G 1989	France 1989	G B 1981	U S A 1981	Canada 1981
aver. length of stay (in days)	11,56	16,59	15,69	18,93	9,95	13,79
aver.beds/physician	4,49	8,12	16,11	11,55	32,14	29,38
aver. occupation of beds in days in year	246,37	316,8	296,9	295,65	283,60	297,98
treatment days/ physicians/year	1116,31	2541,45	4784,32	3415,60	9115,16	8755,40
patients/bed/year	21,31	19,3	20,56	15,62	28,49	21,60
patients/physician/ year	96,55	146,30	334,70	180,45	915,75	634,72
costs/patient/day[1)]	1494,90	275,30	1221,80	42,89	257,28	150,68
costs/patient/year[1)]	17278,88	4782,31	17764,00	811,82	2560,94	2078,51
costs/bed/year[1)]	368282	86150	288337	12681	72960	44901
receipts/physicians/ year[1)]	1668745	699658	5845506	146494	2345185	1319272

[1)] Data in units of national currency, because of very different cost structure
Source: Papeš, 1993

3.2 The problem of keeping health care expenditures under control

In 1993, total operating and capital finance in the health sector was 61.8 billion Kč, or 6.7 % of Czech GDP (see Table 6.).

Even though in the last few years health care expenditure in the Czech Republic grew steadily and significantly (and approximately the same rate as expenditures in other so-called "non-productive sectors"[5]), we can see that since 1990 there has been repeated demands for additional funds. These demands were accompanied by the warning that if increased funds were not supplied, a collapse of our health care system would be unavoidable. The demand for additional funds submitted by different health care organizations to the MOH represented then about 50% of all expenditures originally assigned to the health care system by the state budget.

The demand for further resources was based on the affirmation that the prices of many inputs, especially remedies (drugs and special medical material) were growing rapidly. What is surprising is that although these prices rose, the average input share in the global expenditure for health care remained virtually unchanged.

This can be proved with data concerning the development of the cost of these inputs (in bill. Kčs):

[5] According to Marxist economic theory economic sectors were divided in "productive" (producing material goods) and the "non-productive" (not producing material goods). In addition to health care, these included for example education, personal transport, communication, banks and insurance etc. National statistics indicated this classification.

Table 13: Developments of health care input costs

	1986	1987	1988	1989	1990	1991	1992
drugs	3590	4280	4630	5003	5423	6453	5695*
special healthcare material	1326	1589	1708	1763	2044	2783	
together	4916	5869	6338	6766	7467	9206	12000**
% of total expenditure on healthcare	22.68	25.65	25.61	25.72	24.85	24.16	

Data in million Kč
From: Statistická ročenka ČSSR, ČSFR, ČR
* Zdravotnická ročenka ČR
** Analýza... , 1994

However, the previous data (Analýza.., 1994) shows that significant changes in the cost of drugs prior to this can be registered.

The liberalization of drug importation in 1990 led to a high increase in foreign drug supply on our market, while up to 1990 the number of newly registered drugs averaged about 110 - 180 annually. In 1991 this number had already reached 827 new drugs, and by 1992 the figure stood at 1344 and in 1993 there were 1356 new drugs on the market.

From 1989 to 1993 the entire consumption of drugs in day-rations decreased from about 3.4 bill. to approximately 2.7 bill. However, this consumption, expressed in money volume, doubled (from about 6.7 bill. Kčs in 1989 to about 12 bill. Kč in 1993). Imported drugs accounted for more than half of this amount.

Expenditures in the health care system are highly influenced by inpatient costs.

In the second half of the 1980's a decline in the number of hospitalized patients in Czech Republic was registered.

Table 14: Number of hospitalized patients

	year	1983	1984	1987	1989	1991	1992
a	number of hospital patients *	1,864	1,854	1,853	1,809	1,742	1,905
b	number of treatment days **	25,587	25,100	24,431	23,174	21,528	22,115
c	total cost of hospitals +	6,191	6,801	7,492	8,234		
d	total cost of healthcare +	17,776	19,962	22,879	26,305	38,223	43,552
	relation c/d (%)	34,8	34,1	32,7	31,3		

* in mill. Kč., + in bill. Kč
Source: Zdravotnická ročenka ČSSR, ČSFR, ÚZIS

The MOH supposes that by strengthening primary health care and by improving the co-ordination between out-patient and in-patient health care, within the next 5 years the average inpatient stay will be shortened from 11.6 days today to about 8 or 8.5 days. Owing to the same measures, it might be possible, during the next five years, to decrease the number of beds in health care facilities from the existing 8.3 per 1000 inhabitants to about 4.5 - 5 per 1000 inhabitants. This will help to diminish the growth in health care expenditure and will enable an increase in the number of beds for the long-term sick and also social beds.

Shifting the bulk of health care financing from the state budget to insurance funds might create some problems with the financing of infrastructure. Previously all infrastructure capital was financed by the government, including the year 1993. In 1993, the health capital budget was 2.5 billion Kč, which was about 8.6 % of national budget capital expenditure. The intention is to remove this direct budgetary-lined item and to replace it with a system of grants or subsidies from local, municipal or republic authorities. As yet, there is no clear approach in this respect.

There is a problem in defining a suitable form of control of health insurance offices and to find an appropriate system of mutual relations among the MOH, insurance offices, various health care providers and health care consumers.

As we already mentioned, the accepted system of fee-for-service payments has many drawbacks and often encourages health care facilities which to increase without good reason, perform medical actions which lead to higher costs and also has unfavorable consequences. Table 15. (taken from Analýza..., 1994) demonstrates some of these facts.

Table 15: Development of registered points and other outlays payed by Insurance Offices

	3.Q/92	4.Q/92	1.Q/93	2.Q/93	3.Q/93	4Q/3Q	1Q/4Q	index 2Q/1Q	3Q/2Q	3Q/3Q
no. of points [1]	6,826	8,507	9,076	9,700	8,216	1.25	1.07	1.07	0.85	1.204
drugs and accessories	1,378	1,495	1,622	1,800	2,033	1.08	1.11	1.13	1.13	1.475
direct material [2]	2,069	4,072	4,821	5,200	4,480	1.97	1.18	1.08	0.86	2.165
total direct payments [2]	3,447	5,567	6,443	7,000	6,531	1.62	1.16	1.09	0.93	1.895

[1)] in million points
[2)] in million Kčs or Kč in current prices
Source: Analýza současného stavu..., 1994

When the health insurance fund began, the GHIO practically had a monopoly on the health insurance market (approximately 97 %). Since then other insurance offices have revealed their activities. A picture of this may be given in Table 16. The GHIO is the last item in the table (Všeobecná zdravotní poj.). It can be seen that its share of the health insurance market dropped from 97 % in 1992, to 92 % in 1993, and (contracted insurance) 84 % in 1994, which is still a considerable amount. The data indicates that the GHIO is losing its monopoly and, according to recent information, some of its best clients.

The difference in point value is interesting. Some health insurance offices (HIO of bank employees, HIO of employees in metallurgy etc) are offering higher health payments to health care facilities for 1 point. This means that their patients may receive better health care. These HIO's try to attract better payed employees. It is possible that in the long run the GHIO will serve employees with lower average income than many other HIO's.

Table 16: Selected information regarding health insurance Offices

Health Insurance Office	number of people in January		value of a point					Number of contracted families	
	1993	1994	I/93	II/93	III/93	IV/93		1993	1994
Zdravotní pokl. škodováků	30 251	36 549	0.55	0.55	0.60	0.60	0.60	-	
Hornická zaměst. poj.	93 754	319 720	-	-	0.55	0.70	0.60	5 000	5 000
Železniční poj. Garant	120 636	133 522	0.56	0.56	0.60	0.70	0.70	10 000	9 976
Hutnická zaměst. poj.	162 267	217 038	0.55	0.55	0.65	0.65	0.57	2 500	-
Moravská zdravotní poj.	21 421	64 276	-	-	-	-	0.60	-	1 000
Oborová pojišťovna bank	52 153	92 126	0.60	0.60	0.70	0.70	0.70	-	10 350
Zam. zdr. pojišťovna Atlas	48 003	65 942	0.45	0.45	0.55	0.55	0.60	1 200	1 436
Zdravotní poj. Škoda M.B.	36 803	46 369	0.55	0.55	0.60	0.60	0.60	-	940
Zdravotní poj. MN ČR	87 764	181 785	0.50	0.50	0.57	0.65	0.65	10 500	9 500
Stavební zdravotní poj.	-	50 406	-	0.45	0.55	0.60	0.62	-	1 500
Revírní bratrská pokladna	-	103 590	-	0.57	0.57	0.66	0.66	-	-
Regionální zdravotní poj.	-	37 886	-	0.55	0.60	0.60	0.65	-	2 500
Moravskoslezská zdr. poj.	16 032	34 024	0.50	0.55	0.60	0.60	0.60	1 098	-
Sdružená dopravní poj.	-	34 743	-	-	-	-	0.60	-	-
Zdrav. poj. Metal-Aliance	-	39 953	-	-	0.55	0.55	0.60	-	-
Vojenská zdravotní poj.	116 206	208 956	0.40	0.40	0.55	0.55	0.65	6 181	7 000
Garant - Hospital	23 699	73 629	0.53	0.58	0.60	0.60	0.60	-	5 000
Zdravotní poj. Crystal	-	129	-	-	-	-	0.60	-	-
Všeobecná zdravotní poj.	9 495 311	8 875 319	0.52	0.52	0.52	-	-	17 074	-
TOTAL	10 304300	10 615 962							

Source: Analýza současného stavu ..., 1994

Nevertheless, the GHIO remains an extremely powerful organization and the funds it has at its disposal are enormous. It seems necessary to analyze the data concerning the income and expenditure of the GHIO, together with a thorough analysis of the costs of its operations. The fact is, that while the GHIO used 32 bill. Kčs in 1992, in 1993 it had approximately 53 bill. Kč at its disposal (more than 65 %). So far, the MOH does not control the effectiveness and efficiency of the utilization of these means, though it is fully responsible for the quality and economy of the health care system.

A particular problem lies in the financial relation of the GHIO to hospitals. Individual hospitals have different costs per patient/bed day. Despite this. the GHIO pays almost the same sum per patient/bed day to all of them. The difference in costs between different types of hospitals is shown in the following table (F- faculty hospitals, III- regional hosp., II- county hosp., I- local hosp. The names do not correspond to the content and each category was defined by a certain standard of minimally rendered services).

Table 17: Costs of bed days and payments by the GHIO

	average costs of bed/day 1989 Kčs relation		costs of bed/day 1990 dispersion average		payment by GHIO per day selected specialities Kč relation		payment by GHIO per day other specialities Kč relation	
F	537	100 %	298 - 923	607	142,15	100 %	136,75	100 %
III	426	79 %	457 -2992	557	142,15	100 %	136,75	100 %
II	306	57 %	120 -3509	366	132,70	93 %	123,70	90 %
I	291	54 %	184 - 587	347	132,70	93 %	123,70	90 %

Source: Zdravotnické ročenky ČSFR 1990 a 1991, ÚZIS

Unified daily taxes cannot reimburse the average daily operating costs, even in the previous hospitals type I and II. They are even less able to reimburse the costs in large hospitals (previously type III and especially F), where the operating costs of a bed day are almost twice as high. On the contrary, GHIO fees differ by about 7 or 10%. The hospitals survive this financial situation but

only with great difficulty. Partly, they receive additional payments from other sources apart from the GHIO. Partly they subsidize the activity of their bed departments by the activity of out-patient services. And some of them, especially hospitals of type F and III are operating in red numbers.

We mentioned above that, through the fee-for-service system, health care facilities are motivated to increase the quantity and range of executed services. They are able to influence patients to accept a more extensive treatment, especially when the patient does not share the cost of this treatment. Partially due to this, the MOH suggests introducing some sort of financial contribution from the patient regarding costs connected with his/her treatment. In particular, they may be asked to contribute to the cost of a specialist's visit without approval of the general practitioner (with exception of some urgent situations and patients in long-term specialized treatment). This approach may also help to change the individual attitude to one's own health status. However, there still remain many unanswered questions connected with this problem.

3.3 Problems of further privatization steps

The number of health care facilities privatized so far is shown in Tables No.10. and 11. In accordance with the intentions of the MOH, the privatization of subjects included in the list of health care establishments privatized in the first wave must be completed by the end of 1994.

The privatization process is supported by offering favorable credits, applying a long term schedule for repaying the purchase price, partial compensations to buyers of establishments which are in a critical standing. It is expected that further privatization steps in the health care will come across difficulties. Privatizing hospitals creates many difficulties and problems both for investors and for the physicians employed in these establishments (to say nothing of the health care consumers).

The investors face the following main obstacles: Facilities are in need of major improvement; a capital market for health care does not exist; they have to await low return on their investment; due to unpredictable financing, this investment is high risk; there is a lack of managerial skill in the health sector and they are going to work in an uncertain, regulatory environment.

The physicians who wish to take part in privatization face the following difficulties: due to their low salary history, they have accumulated no capital; good security for private loans is necessary and the interest is high; future cash

flow is uncertain; the future consumer demand is uncertain and they do not have sufficient business skills.

Privatizing the Czech health system for inpatients will mean that the facility investors and/or owner-communities must upgrade the facilities. This modernization will be rather expensive as many of the facilities are old: For example some 26% of inpatient beds are over 75 years old and 45% are over 50 years old.

Number of beds	cost to replace (in billion Kč)	
	all beds	50% of beds
100 years old: 5,427	3,8	1,9
75 years old: 21,200	15,0	7,5
50 years old: 38,160	26,7	13,4

Source: Raymond e.a., 1993.

It is surprising that in the process of privatization of health care facilities to date, the non-profit organizations do not play any role, not even in the future plans of the MOH. For the privatization of middle and large health care establishments, this form of organization may have some advantages. Such organization might provide some type of beneficial services that otherwise would not be provided by profit organizations (when these services do not typically generate economic profit), might lead to beneficial competition among providers (might create greater efficiency and responsiveness to public needs with lower cost), attract some additional financial means (+tax privileges for possible benefactors) etc.

A draft of the bill concerning Czech non-profit institutions is being prepared, but very slowly and without any active interest from the government.

Reinhard (1993) shows that the non-profit organisations (NPO) that provide health care play a significant role in many states. These organizations occupy a position between government organizations and profit companies by combining some characteristics of government organizations with those of private enterprise. Although NPOs are generally permitted to make a profit (i.e. to earn a surplus), they are not permitted to distribute such profit to Members, Trustees, Officers or other private persons.
The importance of NPOs in different countries can be seen from the following indicators:

- In Belgium NPOs provide approximately 61% of all hospital care.
  In the health and social sector there are approximately 5 000 NPOs.

- In the Federal Republic of Germany, NPOs operate over 2 300 hospitals and clinics employing over 265 000 individuals. About 51% of hospitals are operated by NPOs.
  In addition to this, another 35% of hospitals are operated by Church-related organisations and 14% are owned by profit companies.
- In the Netherlands, the majority of hospitals (about 85%) are operated by NPOs.

In France the NPOs do not play a significant role in health care (even though they are permitted). Mostly there exist Public Health Care establishments (Les Établissement Public de Santé). These are legal entities, financed by public spending and autonomous in legal and financial fields. Their objectives must not include commerce or manufacturing. They are created by the authorization of a regional or national Board of Health Care Administration. There also exists Private Health Care Establishments which are licensed on the basis of an application to the Ministry of Health Care.

Non-profit health providers in the US make up the largest portion of all United States health institutions, particularly in the hospital field. In 1989, nonprofit organizations accounted for 51 % of all hospitals, 56 % of all hospital beds and 65 % of all hospital expenditures.

Of all private health clinics and home health service agencies in the US, 32 % are nonprofit organizations.

In the US, 25 - 30 % of the total revenue of non-profit organizations comes from the government. In health care, about 55 % comes from payments made by clients and only about 18 % from private donations.

Tables 18. and 19. demonstrate the role of non-profit organizations in health care in the USA. (Reinhard, 1993).

Table 18:

Table 19:

Often the government is the founder of an NPO and plans to transfer the use of state property to NPO (Belgium, the Netherlands and in some parts of Germany). There are several ways such a transfer can occur:
- Transfer property to NPO outright
- Lease the property to the NPO
- Enter a management contract with the NPO relating to the operation of the property.

A critical issue which accompanies the creation of a non-profit sector is the question of tax advantages for non-profit organizations, or specifying objectives for which tax exemptions are permitted (tax exemptions for the non-profit organization itself, tax deductions for contributors and tax exemptions for those who provide capital).

3.4 Structural changes in health care

Within the health care sector at least two kind of structural changes are progressing simultaneously: changes in the structure of health care facilities (including changes between the inpatient and outpatient facilities) and changes in the structure of medical staff. Both these changes are closely interconnected and both influence the productivity, effectiveness and costs health care facilities.

The following data proves that, during the 1980's two types of hospitals, from the previously four, predominated: faculty and county hospitals. (F- faculty hospitals, III- regional hosp., II- county hosp., I- local hosp. The names do not correspond to the content properly, each category was defined by a certain standard of minimally rendered services). The original concept of dividing hospitals into four types, according to the kind of services they offer and their technical equipment, was gradually losing its position.

Table 20: Expenditures of hospitals of different types

year	1983	1984	1985	1986	1987	1988	1989	1990*
F	1,568	2,031	2,200	2,363	2,485	2,641	2,843	3,131
III	0,783	0,449	0,497	0,518	0,551	0,580	,598	,767
II	2,568	2,607	2,739	2,963	3,162	3,294	3,468	3,829
I	1,273	1,300	1,366	1,340	1,193	1,284	1,324	1,439
∑	6,191	6,388	6,801	7,184	7,492	7,799	8,234	9,162

Data in billion Kčs, current prices
Source: Zdravotnické ročenky ČSSR, ČSFR a ČR, ÚZIS
* Last published data

Transformation changes led to corresponding changes in the structure of health care personnel in hospitals and out-patient facilities. This is represented in the following table (No 21.).

Table 21: Personnel working in hospitals and out-patient facilities

personnel (whole time equivalent)	1991			1992		
	hospit.	out-patient facilities	All in health care	hospit.	out-patient facilities	All in health care
physicians	8896	19194	32233	15491	11379	32039
other with university degree	666	859	7917	988	392	8466
health nurses	25697	20392	53204	33873	11738	54405
paramedical personnel	36631	31703	96960	48164	18141	97056
health personnel total	1482	53717	149885	71033	30946	150582
tech. and economic personnel	2437	1077	12186	4435	1190	13707
workers	16955	7622	48804	18104	4044	47537
all*	70898	62416	213439	93596	36185	214638

* all: including research institutes, budgetary organizations and balneological institutes

Source: Zdravotnické ročenky ČR 1992 a 1993, ÚZIS

Though the global number of employees in state health care did not change significantly, a spill-over of medical staff from the out-patient sector into hospitals took place. This can be clearly seen from the relative and absolute changes in the main professions:

Table 22: Absolute and relative changes in the number of employees in hospitals and state health care facilities between the years 1991 and 1992

personnel (whole time equivalent)	relative changes (%)			absolute changes (numbers)		
	hospitals	out-pacients	all	hospitals	out-patients	all
physicians	174	59	99.4	6595	-7815	-194
other with university degree	148	46	106.9	322	-467	549
health nurses	132	58	102.3	8176	-8654	1201
paramedical personnel	131	57	101.1	11533	-13562	96
health personnel total	138	58	100.5	19551	-22771	697
tech.and economic personnel	182	110	112.5	1998	113	1521
workers	107	53	97.4	1149	-3578	-1267
all	132	58	100.6	22698	-26231	1199

Source: Zdravotnické ročenky ČR 1992 a 1993, ÚZIS

The significance of the change in the out-patient sector can be seen especially in the column showing relative changes (practically all employee categories decreased from 60 to 50% and this happened within one year! In discussing this fact, it was mostly suggested that there was a shift of medical staff to the private sector. However, the two columns of absolute changes in the out-patient and hospital sectors testify that **most of the medical staff who left the out-patient sector were absorbed by the hospitals.** The technical and economic group was the only one to show no decrease in the out-patient sector. This group actually shows a small increase. This may result from the shift to another economic system, which has to be - in comparison with the previous "planned and budgetary system" - more specific and itemized concerning costs, payments and receipts.

It is necessary to mention that there are some specialists who maintain that the shift in numbers of medical staff between the out-patient sector and the hospitals is not an actual one, but that it is a result of some methodical changes in

statistics. Namely, that the medical staff working in out-patient service hospitals was in previous statistics included in the out-patient sector, while today they are included in the hospital staff. This phenomena asks for further serious analysis.

When analyzing different failings of our health care facilities, the shortage in medical staff will often be introduced as cause for this failing. Demand for additional staff is often expressed by those representing the interests of our health care system. It is therefore interesting to compare the staffing of our health care with that of some other countries.

The number of employees in our health care system developed in the last few years, as is shown in the following table:

Table 23: Number of employees in state health care

	1986	1987	1988	1989	1990	1991	1992
physicians	32320	32747	33210	33346	33848	33624	32039
pharmacists	3504	3566	3582	3570	3650	3612	3326
nurses	96371	100860	102228	103296	103508	101086	97056
total	231060	234151	238345	242353	242052	231433	214638
growth %		1.3	1.8	1.7	-0.1	-4.4	-7.3

Source: Zdravotnické ročenky ČSSR, ČSFR a ČR (ÚZIS) and own calculations

A comparison with other countries is interesting.

Table 24: Relation of number of medical staff to population in different countries in comparison with the Czech Republic

A: total number of employees in health care
B: total number of physicians (active)
C: population (in thousands)
D: A/B
E: C/B
F: C/A

		A	B	C	D	E	F
Austria	1987	18200	14512	7576	12.5	522.1	41.6
FRG	1987	1471000	171487	61077	8.6	356.2	41.5
France	1987	1325000	138835	55627	9.5	400.7	42.0
Netherland	1987	341000	34573	14671	9.9	424.3	43.0
Sweden	1987	329000	22485	8399	14.6	373.5	25.5
Switzerland	1987	178000	9947	8619	17.9	866.5	48.4
United Kingdom	1987	1212000	78128	56930	15.5	728.7	47.0
USA	1987	6142000	570000	243934	10.8	427.9	39.7
CZ	1987	234151	32747	10349	7.2	316.0	44.2
	1991	231433	33624	10306	6.9	306.5	44.5

Source: Poulier, 1989
* Zdravotnická ročenka ČR, 1993

This data proves that in 1987, in six out of eight compared countries, the ratio of medical staff/inhabitants was higher (Sweden, the USA, the FRG, Austria, France and the Netherlands), and was remarkably higher in Sweden. This ratio is lower only in two countries (GB and Switzerland) and, surprisingly, these countries' health care is often given as an example to us.

The difference between our country and the countries shown above is more significant when we compare the ratio of physician/inhabitants. Even the FRG and Sweden, where this ratio is high, do not reach our level. The former minister of health care, M. Bojar, brought this fact to attention several times in his presentation, stating that we are "overstaffed with physicians".

The data shows that, in the staffing of our health care, there are two opposite tendencies:

- relatively lower staffing with middle health care staff, which might indicate an inadequate level of independence (of activities) of middle health care staff, worse climate for introducing HOME CARE etc.
- relative "overstaffing" of physicians, the most qualified and most expensive medical staff; this signifies (in relation to the previous issue) that the physicians execute activities for which a lower level of education would be sufficient. That represents a waste of qualifications, leads to unnecessary costs and decreases the possibility to reward efficient physicians properly.

If we compare similar data for the years 1987 and 1991, we can see that there is no improvement in these relations. On the contrary, the average number of middle medical staff per physician is still decreasing, and simultaneously the number of inhabitants per physician decreased.

The structural changes that took place in health care facilities do not seem to offer a promising starting point for the second phase of health care privatization, especially concerning hospitals. The costs were allowed to grow without acceptable justification and the changes in the medical staff structure is irrational. It will be difficult for the new owners to adapt hospitals' economy to new conditions, even if it is a non-profit organization.

4. Conclusions

In many developed countries health care now causes difficult economic, managerial and even political problems. In our country, where fundamental changes in the health care system were absolutely necessary and long over-due. This is further complicated by the process of economic transformation and privatization with many changes are occuring simultaneously.

Individual interest in one's own health during the last decades decreased. Measures must now be found to restore this.

It is well known that health care services can only influence the health status of its inhabitants by about 20-30%. However, it is extremely important to improve health care and to prevent other negative influences gaining further ground. Of course, those who formulate the state health policy should not concentrate solely on health care system, but rather should strive to reduce the negative influences of other factors (pollution, car accident prevention, lifestyle, etc.).

One of the major concerns of our health care transformation is a sound relation between the proved needs of our health care system and the possibilities of our economy. The needs of the population result from existing health status.
The health status of our population is not satisfactory .

Although society is permanently increasing the portion of GDP aimed at health care, deficiencies in the allocation of these means and low efficiency and economy of health care facilities cause effect does not correspond to the resources used.

The basic trends of health care transformation were fully justified. However, many changes in the economic environment along with a rush to quickly change the existing situation, may be the cause of some transformation changes being introduced without a sound conceptual framework. In this respect, some improvements may be seen in the last few months.

Introducing a new health care insurance system was a positive act but, maybe owing to the facts introduced above, this system has many imperfections and weaknesses which could have been avoided. In particular, the introduction of the fee-for-service system as dealing exclusively with payments made by the GHIO to health care units is in many ways inadequate. It encourages the health facilities to increase the volume of services without regarding the quality. So far the health care consumer has no defence.

The necessity to discontinue the state ownership of health care establishments was evident. However, it seems questionable that methods of privatization commonly used in industry and business should also be the most suitable also for health care organizations. It is difficult to understand why the type of non-profit organizations was not applied here and why, up to now, there has been no legal founding for such a type of organization prepared yet.

Hospitals form a very important part of the health care system. They face many serious problems and, here, changing the form of state ownership seems to be considerably more difficult than with the small scale health care units. The previous financing from the state budget was substituted by a roundabout financing through the GHIO. This introduced many administrative problems, but so far has not lead to a change in hospital managements' behavior regarding better quality health care and higher effectiveness.

Structural changes in the medical staff do not present a sound basis for further privatization steps. This process did not improve the economy of these facilities or the efficiency of our health care system.

The level of health care, and any changes in this level, concern a substantial part of the population. In this respect, public opinion reacts very quickly to any negative changes which might influence the public approach to economic and social transformation. This also has political significance.

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