Healthcare Reforms in Bulgaria: Towards Diagnosis and Prescription

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Abstract: The paper studies the policy response to the market failures and challenges of healthcare in transition. Bulgaria chose a halfway shift from healthcare services provided entirely by the state to a system with private providers of outpatient services and public providers of inpatient services, both sectors financed mainly by state-run compulsory payroll insurance system. The paper shows the evolution of this reform path to low compliance by both customers (contributors) and service-providers (contractors with the National Health Insurance Fund), which leads to excessive regulations and control, and crowding out of the private sector. The outcome is a system that is increasingly driven by administrative controls at the expense of market incentives. Based on this analysis it identifies the relevant policy implications and opportunities for moving the stalled health reforms out of the institutional impasse.

JEL classification: H51; H83

Здравната реформа в България: Опит за диагноза и предписание

Изследва се реформата в здравеопазването като отговор на пазарните несъвършенства и предизвикателства на предоставянето на здравни услуги. България предприе половинчат вариант на преход в здравеопазването, преминавайки от система на здравни услуги, предоставяни изцяло от държавата към система на частни доставчици в доболничния сектор и публични доставчици в болничния сектор, като и двата сектора са финансирани основно от задължителните вноски в държавната здравоосигурителната система. Изследването показва закономерната еволюцията на тази система към отклоняване от добросъвестното спазване на законодателството както от страна на осигурители и осигурени, така и от страна на доставчиците на здравни услуги, което пък води до прекомерен административен контрол и регулации и изтласкването на частния сектор от тази сфера. В резултат качеството на услугите се определят главно от регулации и контрол вместо от избора на пациента пазарните стимули. Въз основа на този анализ са направени изводи за необходимата политика и възможностите за извеждане на здравната реформа от нейния институционален застой.

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List of abbreviations

CEE	Central and Eastern Europe
DRGs	Diagnostically-related groups
EU 10	The 10 new members of the European Union that joined in 2004
EU 15	The 15 members of the prior to the 2004 enlargement
EU NMS	EU new member states = EU 10
GPs	General practitioners
ICD 10	International classification of diseases - 10th version
ICD-9CM	International classification of diseases - 9th clinical modification
MH	Ministry of Health
NFC	National Framework Contract
NHIF	National Health Insurance Fund
NHM	National Health Map
NSSI	National Social Security Institute

Executive summary

Health care is among the few areas, where the benefits of Bulgaria's transition to market economy are most uncertain. This is largely due to the fact that the growing number of people, which are most dependent on the public health care system - elderly people, unemployed, low income groups etc. – have most limited access to good quality services. In brief, the system lost much of its former advantages of state healthcare which lie mainly in the universal **coverage and access,** without gaining yet much of the advantages of a market-based provision of services, which is supposed to bring technology innovation, higher **quality and customer satisfaction**.

Standard **health indicators** have deteriorated in the years of transition. **Falling birth rate and rising mortality rate,** combined with migrant outflow of young people – all that intensified the **problem of ageing population** and put additional pressure on the healthcare system of transition. High mortality rate is driven mainly by diseases of the circulatory system (heart attacks and brain strokes), which account for more than two thirds of all deaths. Cancer comes second, but with fast growing rates. The leading causes of hospitalization are diseases of the respiratory system, with pneumonia accounting for about half of the lethal outcomes in this group. Another alarming trend is the rising incidence of psychiatric diseases. As they are not among the leading mortality factors they remain outside the focus of health statistics and moreover are not always adequately diagnosed and cured in Bulgaria. Their social and economic costs however are much higher than implied by death statistics.

Another important negative indicator of the overall health status is **the growing disability rates.** The number of disabled persons grew three times in the years of transition, the indicator of newly registered disability cases exceeding almost twice the EU average and is one of the highest in the world. Similar to the mortality factors, the leading cause of disability are the diseases of the circulatory system.

An important synthetic indicator of the effectiveness of the health system is **infant mortality rate**. In the beginning of transition this indicator placed Bulgaria in a position similar to that of the countries of CEE and in even better position than Poland and Hungary. About 15 years later it is in the bottom of the list with only Romania and Albania having higher infant mortality rate on the Balkans. The probability of a child dying before the age of five is about three times higher in Bulgaria than in the EU-15 and about two times higher than in the new member states. The leading causes for the high infant mortality rates are premature births or complications in the prenatal period as well as pneumonia and various infections. The years of transition marked as well deterioration of some health indicators, which reflect problems typical for the low-income countries, such as incidence of **tuberculosis and hepatitis**.

All above indicators are national averages and hide **wide regional disparities and the gravity of the situation in certain areas.** Mortality, including infant mortality, is much higher in rural areas and regions with ethnic minorities.

The worsening health status of Bulgarian population is partly due to negative demographic trends - declining birth and fertility rates, outflow of young migrant workers abroad, etc. Large part of it can be attributed however to **worse coverage and access** to healthcare services in the years of transition. The reasons are not only in the economic and social shocks of transition but also in institutional failures.

The major driver of deteriorated access to services is the drop in incomes and the increased economic vulnerability of a large part of the population combined with the transition to insurance-based system. Poverty and poor health status are correlated in a vicious circle, in which poverty leaves more people out of the coverage of health insurance, while poor health creates more unemployment and social exclusion. The health reform could not supply adequate solutions to these new challenges to the healthcare system. The state withdrew from provision of healthcare services, concentrating on the management of state insurance, while active prophylactics and prevention programs relied mainly on external financing thus responding to international priorities rather than to national health risks. Rising infant mortality and infectious diseases can be largely attributed to drop in immunization rates. The transition from state-run to insurance-based healthcare system reduced prophylactic and healthcare coverage, especially for those who are not covered by health insurance.

Apart from the problems of coverage and access for the fast expanding low-income group, the transition to market economy brought some **new or increased health risks for other income groups as well.** The big bang liberalization of prices and entrepreneurship without the adequate legal environment to protect the rights of consumers and employees, led to an increase in the health risks at work and at home. The state had little capacity to enforce food and work safety standards or environmental standards and had no desire to regulate the oligopoly medicine market. **Higher social and economic stress combined with lower protection of workers and customers led to sharp deterioration of quality of life and health environment for a large part of the population.**

Apart from the social and economic hardships of transition, the problems of the Bulgarian healthcare stem largely from **deficiencies of public health management.** In a nutshell, institutional failures can be summarized in three types of shortage:

- Shortage of political will for timely launch and completion of health sector reforms.
- Shortage of public funds
- Shortage of public health management skills

Health care reforms were **delayed for about a decade,** starting in earnest not before 1999. Under the old system health care was provided for free by the state through polyclinics and hospitals and was financed by general revenues. Medicines for home use were heavily subsidized. The advantages of this system over a market-based system are that it ensures universal coverage and access. The problem however is that central allocation of health care funds and lack of competition in the provision of services reduce

efficiency and provide little incentives for quality improvements. **The reform path chosen by Bulgaria was a halfway shift from the old system to a new one in which the state runs a universal compulsory health-insurance system, which contracts the provision of services either with private practices (in the case of outpatient healthcare), or public hospitals (in the case of inpatient healthcare).** Privatization of the hospitals was blocked, while private insurance funds have found themselves in uneven competition with the NHIF. As a result the seven years after the launch of comprehensive health reform, the outcomes are mixed with some progress achieved mainly in the outpatient service sector. The restructuring of the hospital sector stalled. Differences in incomes have caused outflow of specialists from the inpatient to outpatient health sector, even though physicians are allowed to work both in a hospital and in a private specialized practice. Motivation of medical staff has fallen drastically, the number of nurses, who are in shortage in many advanced countries has dropped. The practice of informal payments for hospital services has become pervasive and tends to get institutionalized through the public-private status of some hospital physicians.

Public health expenditures are low in international standards. International comparisons based on public consumption expenditure indicate that Bulgaria has the lowest public spending on health in the region except for Albania. The gap in financing is even more pronounced in terms of per-capita spending, where Bulgaria has the lowest indicator among the new member states of the EU. It is also among the lowest on the Balkans. Health insurance contributions are obligatory and are paid on a payroll basis with the larger share paid by the employer. It is in the amount of 6 percent on insurance income, shared between the employer and the employee in the ratio of 65:35 in 2006.

Private health expenditures are in the range of 2-3 percent of GDP and are mainly individual payments by the patients. Additional private pre-paid plans have insignificant share of the health insurance market

The restructuring of the outpatient service center is more or less completed. Primary healthcare is provided entirely by private GPs operating under contracts with the NHIF. Their income is a result of customer payments per visit and payments by the NHIF. The latter are based on registered patients (about 60 percent); and performed activities under infant, maternity and prophylactics healthcare programs (about 40 percent). The payment mechanism of the specialized (secondary) healthcare is similar, but specialists receive their money from the NHIF on per-visit basis. The remaining problems in the outpatient service sector are those of coverage and access as well as excessive regulations and weak incentives.

The hospital sector suffers from more serious institutional deficiencies. The transition to NHIF based financing has been completed in 2006, but persisting problems prove that this transition is hardly able to provide the optimal solutions without restructuring the still predominantly public hospital sector. There are two major problems in the sector. The first one is the **insolvency of a large part of the hospitals**. The second one is the **low wages and corruption**. The problem of hospital arrears to suppliers is partly due to soft budget constraints in the past, but more importantly reflects flaws in the

mechanisms of NHIF financing. Despite the number of consultancy projects on preparing the introduction of DRG-based financing, relations with the NHIF are still based on clinical pathways, which is prone to abuse and deviation of hospital receipts from optimal costs. There is not a clear vision about the transition to what is believed to be a superior system under which insurance receipts reflect actual demand for hospital services rather than service-provision contracts with the NHIF. The problem with **low wages** has been addressed through allowing hospital physicians to work in outpatient private practices as well as through giving more discretion to the managers of hospitals in regard to hospital budgets.

Quality of healthcare services is pursued through regulative controls at entry rather than adequate financial incentives and monitoring of the quality of output. The major instruments in this regard are the accreditation mechanism and the medical standards. The accreditation of the healthcare providers aims at ensuring minimum standards of equipment and qualifications for the list of services covered by the NHIF. There are 24 medical standards, which regulate in details the requirements for the medical equipment, the necessary medical staff and qualifications; and contain detailed definitions of the syndromes covered by the standard and the respective interventions. Thus quality is guaranteed through **minimum requirements on inputs**. Apart from these entry-level regulations, the money reimbursed by the NHIF is in no way related to further quality-enhancing inputs such as professional training or investment in new technologies and innovations. Little is done even to measure and monitor **the quality of the output** of healthcare interventions if not to encourage it. With competition virtually absent, the medical practices and hospitals have little incentive to spend on professional training and more efficient technologies. The system is designed to attain some uniform minimum level of standards. At the same time enforcement is weak, as neither the Ministry of health nor the NHIF have adequate capacity to impose sanctions or to refuse accreditation of entities in the areas with limited coverage and access, where quality problems are most pronounced. With a system relying excessively on sanctions and given the weak enforcement capacity, policymakers find themselves in a vicious circle of intensifying regulations and controls with deteriorating compliance by doctors.

The reforms aimed at creating an insurance-based healthcare system, which provides equitable access and coverage together with consumer choice and competition between providers. Restructuring was announced to aim at a system based on the principle “money follows the patient”, i.e. distribution of public funds according to the number of patients and volume of activities, as well as according to the results.

The actual outcomes are far from satisfactory and are still closer to the principle “money follows the regulations”. The healthcare system suffers from excess capacity, poor maintenance, inefficient utilization of resources and old diagnostic and treatment technologies. The average Bulgarian pays higher cost in insurance money, formal and informal individual payments than the citizens of other transition countries for worse services. The present day system ignores investment in new technology and in professional training. Health protection, prevention of diseases and prophylactics remain still outside the focus of the restructuring and are underfinanced and poorly managed.

Last but not least, access to basic services for the most vulnerable groups of society is limited and uneven. In this context this study identifies several pressing challenges that need to be addressed in the short term.

Firstly, there is unfinished agenda in the **restructuring of the outpatient service sector**. It concerns above all the problems of access and coverage as well as the optimal balance between per-capita and activity based financing. More money needs to be allocated to prevention and prophylactics in order to reduce the risks and the burden of the health insurance and inpatient service sectors. The clue is in improving the access to primary and specialized health care services of the social groups at risk. Financial incentives designed to attract medical staff to these groups and remote and rural areas need to be increased and better targeted. The efficiency and outreach of the various national health programs is also to be reconsidered through comprehensive cost-benefit analyses.

Secondly, large part of the problems of health service provision stems from the **incomplete coverage of the insurance system**. It leaves those groups, that are most exposed to health risks outside the shelter of public healthcare. The state needs to optimize payroll tax collection policies rather than to punish those who have little responsibility for irregular contributions by their employers and to finalize regulations for those who remain outside the coverage of the insurance system.

Thirdly, public policy and regulation in the field of **public procurement of medicines** needs to go through major reassessment and restructuring. Guarantees are needed that hospitals spend the appropriate amount for medicines for each of the contracted clinical pathways with the NHIF, so that medicine costs do not fall on the insured persons. The list of medicines for outpatient use reimbursed by the NHIF should be set at a minimum with more room left to private insurers. A more activist price monitoring and control on this oligopoly market needs also to be considered.

Fourthly, most pressing problems of healthcare stem from the impasse in the **hospital care sector.** Hospital financing is still far from optimal, with NHIF refunds reflecting supply potential rather than actual demand and cost of services. This calls for reconsideration of the financial relations between hospitals and the NHIF and a shift towards financing based on diagnostically-related groups.

Last but not least, the **role of the private sector** and the nature of private-public interface in the healthcare sector need to be reconsidered. The private sector is still kept away from the market of health insurance and hospital healthcare. Advanced health systems try to find the optimal balance between market choice and incentives on the one hand and the responsibilities of the state, on the other. Usually the state takes primary responsibility for improved coverage and access for the groups that are most exposed to health risks. Second it manages the pursuit of national health priorities, such as active prevention, immunization and prophylactic policies, the outcome of which are monitored through the standard indicators. The objectives of wider consumer choice are entrusted to the private sector. In the context of Bulgaria this would imply more active involvement of

the private sector in the provision of inpatient services and individual or collective pre-paid plans. The state has regulatory and control responsibilities on both the insurance and the health service markets, but the current balance between incentives on one hand and controls and sanctions on the other needs to be redressed in favor of better targeted incentives.

Introduction

Bulgarian healthcare sector is among the areas, where structural reforms of transition have stalled. The unquestionable achievement of the last seven years of reforms is the completed transition to insurance-based financing. The benefits for consumers however, are still to come. A large part of the population lost access to healthcare; and those that did not are far from satisfied with the services provided. Technology is old, hospital staff has little motivation, and corruption is pervasive. In balance in the first 16 years of transition, the system lost much of its former advantages of universal coverage and access, without gaining yet much of the advantages of a market-based provision of services – i.e. technology innovation, higher quality and customer satisfaction. This makes healthcare one of the few areas, where the benefits of transition and accession to the EU are questionable for both consumers and providers of healthcare services, that is for most stakeholders except for a limited number of consultants, lenders to the state and international medicine suppliers.

The major drivers of deteriorated access to services are drop in incomes, unemployment and evasion of health insurance contributions. But there are as well major institutional deficiencies that account for a large part of the poor quality of healthcare services.

This paper looks at those institutional deficiencies. It studies the outcomes of the transition from the former system of entirely state-run and financed healthcare to insurance-based system and identifies three groups of institutional failures: delayed, incomplete and inconsistent reforms, shortage of public health expenditures and shortage of public health management skills. Bulgaria chose a halfway shift to a private provision of outpatient services and public provision of inpatient services with a monopoly state-run insurance system in the center. The market share of private hospitals as well as of private pre-paid insurance plans is insignificant. Quality of service is ensured through regulations rather than market incentives. It is achieved through the accreditation based on detailed medical standards, i.e. it applies controls at market entry level. Beyond that, the money received from the NHIF has little relation with the healthcare provider's spending on new technology, professional training, R&D. and other quality-enhancing measures. With customer choice, largely a fiction, service providers' incomes do not depend much on the quality of services provided, but much more on the supply contract achieved with the NHIF.

Section first studies the specific challenges to the healthcare system confronted by an economy in transition. Section two discusses the institutional failures of the health service sectors, which stem from bad public sector management and vision rather than from the shocks of transition. Sections three and four are dedicated to the reforms in the outpatient and the inpatient sector respectively. Section five concludes by identifying the relevant policy implications.

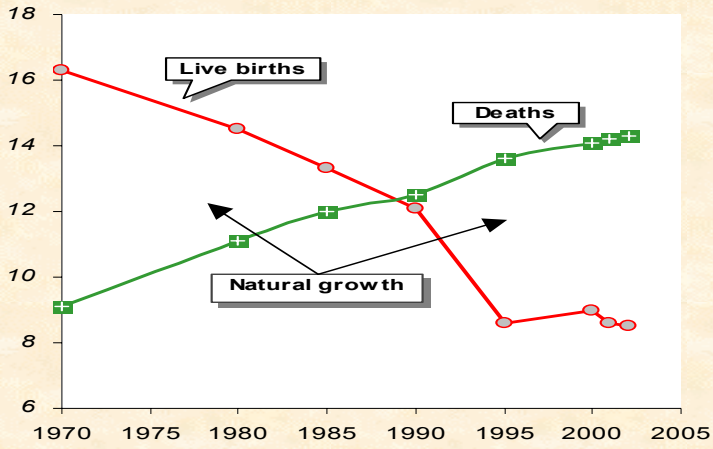
Health challenges of transition and accession

Health indicators

Bulgaria's transition to a market economy in the last 16 years is marked by a deterioration of the majority of standard health indicators. This negative outcome reflects a mix of adverse demographic, economic and institutional factors.

Adverse demographic trends have started long before the start of transition (see fig. 1), and are common for most countries in Europe. Advanced European economies, however had the necessary financial and administrative resources and flexibility to adjust to the demographic challenges without major shocks on their health systems.

Fig.1 **Live births, Deaths and Natural growth** *(per 1000 population)*



Source: Ministry of Health

In the case of Bulgaria, declining birth rates and rising mortality led to negative growth since the start of transition, with the gap widening dramatically in the subsequent sixteen years. **Birth rates** declined by more than 15 per cent in the years of transition: from 10‰ in 1993 to 8.5 ‰ in 2002. Fertility rate (i.e. children per woman) of 1.2 in 2004 is the lowest in CEE. Drop in birth rates coupled with a rise of mortality rates resulted in negative natural growth of -0.7 per cent in average in 1994-2004, which is worse than all countries in Europe except for Latvia (see app. 1). The impact of negative natural growth had been reinforced by a considerable migrant outflow of predominantly young people in the years of transition. This led to a relatively heavy **problem of ageing population**. Even though this is a common problem for most European countries, it is indicative that in Bulgaria the share of the population aged over 60 of 22.3 percent in 2004 is among the highest in Europe (see app. 1). This inevitably generates strong pressure on the health system, whose capacity to respond to these challenges was seriously undermined by shortage of funds.

Life expectancy at birth, which was one of the highest in CEE in the 1980s remained unchanged at 71-72 years throughout the years of transition. Meanwhile all other countries in the region marked considerable gains in this regard, leaving Bulgaria with the lowest longevity records in Europe (see app. 1). **Mortality rate** has shown an upward trend, which after a peak of 14.7 per thousand in 1997 tends to flatten at slightly

lower level. It however is the highest among the new member states as well as in south-eastern Europe.

Age-wise, population in the active age range of 16 to 64 accounts for 48 percent of all deaths. The male to female ratio in this range is about 2:1 - 31.5 percent versus 16.4 percent of all deaths. Rural mortality is twice higher than urban mortality: 20.4‰ versus 11.7‰ in 2002.

Table 1.

Adult mortality in central and eastern Europe 1989-2003

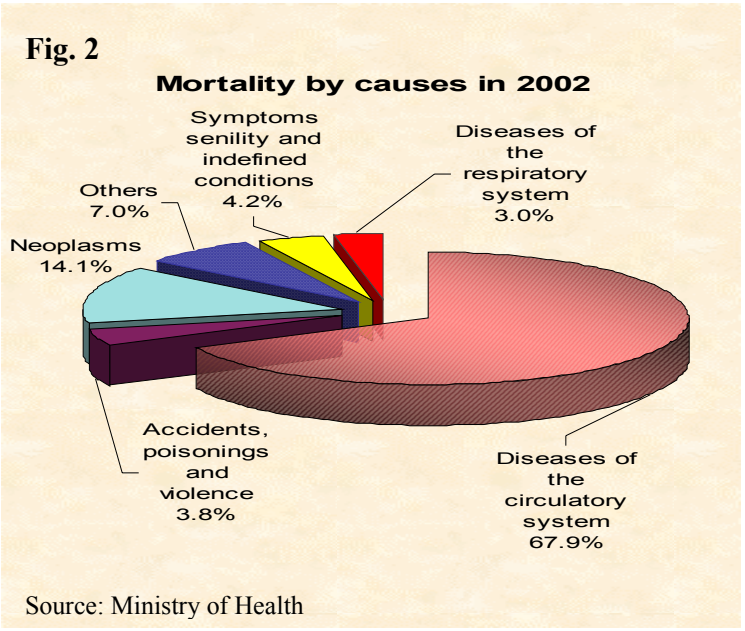
(deaths per thousand population)

	1989	1993	1996	1999	2000	2001	2002	2003
Czech Republic	12.3	11.4	10.9	10.7	10.6	10.5	10.6	10.9
Hungary	13.8	14.5	13.9	14.0	13.3	13.0	13.1	13.4
Poland	10.1	10.2	10.0	9.9	9.6	9.5	9.4	9.6
Slovakia	10.2	9.9	9.5	9.7	9.8	9.6	9.6	9.7
Slovenia	9.4	10.0	9.4	9.5	9.3	9.3	9.4	9.7
Estonia	11.8	14.2	13.4	13.4	13.4	13.6	13.5	-
Latvia	12.2	15.3	14.0	13.7	13.6	14.0	13.9	13.9
Lithuania	10.4	12.5	11.9	11.4	11.1	11.6	11.8	11.9
Bulgaria	**12.0**	**12.9**	**14.0**	**13.6**	**14.1**	**14.2**	**14.3**	**14.3**
Romania	10.7	11.6	12.7	11.8	11.4	11.6	12.4	12.3
Albania	5.6	5.6	5.3	4.9	4.9	4.9	5.3	5.8
Bosnia-Herzegovina	6.9	-	7.7	7.8	7.9	7.7	7.6	-
Croatia	11.0	10.6	11.3	11.4	11.5	11.2	11.4	11.8
FYR Macedonia	7.7	8.1	8.1	8.3	8.5	8.3	8.8	8.9
Serbia and Montenegro	9.5	10.2	10.6	10.9	11.1	10.6	10.2	-

Source: TransMonee 2005

Most common death causes in Bulgaria are heart attacks and brain insults. Classified together as diseases of the circulatory system, they account for more than two thirds of all deaths in the recent years (fig. 2). These cases amount to 70 -100 thousand deaths per year, which is about the size of most Bulgaria's major cities (district capitals). In international perspective Bulgaria has one of the highest scores in this indicator among the nations ranked by the WHO. The reasons for the rising mortality due to circulatory system syndromes in Bulgaria is attributed to the stronger health risks related to smoking, bad

Fig. 2



Source: Ministry of Health

nutrition, alcohol, stress, lack of physical activities and bad healthcare. [2]

Malignant neoplasms come second in the list of most common causes for death in Bulgaria. About one in seven deaths is due to cancer. Cancer cases have been growing steadily in the years of transition (see app. 2). The leaders among them are lung cancer, followed by cancer of the rectum and the stomach as well as breast cancer and prostate cancer. Again, the growing cancer incidence and mortality reflect growing health risks related to smoking, pollution, as well as the lack of early diagnostics.

An important synthetic indicator of the quality of the health system is **infant mortality rate**. In the beginning of transition this indicator placed Bulgaria in a similar position with central European countries and even better position than Poland and Hungary. About 15 years later it is in the bottom of the list with only Romania and Albania having higher infant mortality rate on the Balkans. It is indicative that other Balkan countries with much worse starting positions achieved considerable improvement relative to Bulgaria despite the years of conflicts and political turmoil. (table 2)

Table 2.

Infant mortality rate in central and eastern Europe 1989-2003

(deaths per thousand live births)

	1989	1993	1996	1999	2000	2001	2002	2003
Czech Republic	10.0	8.5	6.0	4.6	4.1	4.0	4.1	3.9
Hungary	15.7	12.5	10.9	8.4	9.2	8.1	7.2	7.3
Poland	19.1	16.1	12.2	8.9	8.1	7.7	7.5	7.0
Slovakia	13.5	10.6	10.2	8.3	8.6	6.2	7.6	7.9
Slovenia	8.1	6.8	4.7	4.5	4.9	4.2	3.8	4,0
Estonia	14.8	15.6	10.5	9.6	8.4	8.8	5.7	-
Latvia	11.3	16.2	15.9	11.3	10.4	11.0	9.8	9.4
Lithuania	10.7	15.4	10.0	8.6	8.5	7.8	7.9	6.8
Bulgaria	**14.4**	**15.5**	**15.6**	**14.6**	**13.3**	**14.4**	**13.3**	**12.3**
Romania	26.9	23.3	22.3	18.6	18.6	18.4	17.3	16.7
Albania	30.8	33.2	25.8	12.3	12.1	12.1	14.6	17.3
Bosnia-Herzegovina	18.4	22.7	14.0	10.1	9.7	7.6	9.4	-
Croatia	11.7	9.9	8.4	7.7	7.4	7.7	7.0	6.3
FYR Macedonia	36.7	24.1	16.4	14.9	11.8	11.9	10.2	11.3
Serbia and Montenegro	29.3	21.9	15.0	13.6	13.3	13.1	10.2	-

Source: TransMonee 2005

The probability of a child dying before the age of five is about three times higher in Bulgaria (15‰) than in the EU-15 and about two times higher than in the new member states (EU-10). Similarly to infant mortality at birth, only Albania and Romania have worse indicators than Bulgaria in 2004 (see appendix 1). Furthermore, national averages hide wide regional disparities. Infant mortality rate in rural areas and regions with ethnic minorities is much higher. In Sliven for instance it is 30‰. The leading causes for the high infant mortality rates are premature births or complications in the prenatal period as well as pneumonia and various infections.

[2] Ministry of Health *The Health of the Nations in the beginning of 21st century,* , (in Bulgarian language) Aug. 2004, p. 24

Deteriorated coverage and access

Large part of the challenges to the health system of transition is related to ***coverage and access.*** These problems stem mainly from the drop in incomes and increased economic vulnerability of a large part of the population combined with the transition to insurance-based system. Poverty and poor health status are strongly correlated in a vicious circle, in which poverty leaves more people out of the coverage of health insurance, while poor health creates more unemployment, and social exclusion. According to a World Bank poverty study on Bulgaria, in only two years of a dramatic economic and financial crisis of 1996-1997, poverty rates increased about 6-7 times: from 5.5 percent to 36 percent.[3] Even though it has subsequently fallen to 12-13 percent it is still much higher than in the pre-crisis period. Currently it is estimated at about 13.4 percent according to the Eurostat methodology.[4] This figure, even though commensurate with comparator countries, does not reveal considerable poverty gaps (dubbed pockets of poverty) in the rural areas and the areas with concentration of ethnic minorities, where the pressure on the health system is the strongest.

The problems of coverage and poverty are most visible in the sphere of immunizations and prophylactics of some infectious diseases, the incidence of which increased during the years of transition. A case in point is **tuberculosis.** In 1985-1991 the incidence of tuberculosis in Bulgaria was in the range of 0.25-0.29‰ (in). Since the start of transition it started to grow by 1 percent each year, scoring an average of 0.43 ‰ in 1993-2003 with a peak in 1998. These levels are about 3.5 times above the EU-15 averages of about 0.12 ‰.[5] The reason for the outburst of tuberculosis is to be attributed to deficiencies in the monitoring and diagnosing of the disease as well as to inadequate prophylactic and preventive measures in the hotbeds of contamination and the population at risk. Part of the initial rise in registered cases in the early 1990s can be attributed to improved monitoring and accountability relative to the years of state health care. The continuing upward trend throughout the 1990s however, shows that there are real flaws in the system of prevention of infectious diseases. These flaws can be traced down to problems with coverage and access inherent in the process of restructuring.

Increased health risks at home and at work

Apart from the problems of coverage and access, the transition to market economy brought some new or increased health risks for all income groups. The big bang liberalization of prices and entrepreneurship without the adequate legal environment to protect property rights, and the rights of consumers and employees, led to a drastic increase in health risks in everyday life. First, there was a lot of social stress. The abrupt drop in output and the closure of many state-run enterprises produced some winners, but much more losers, especially among the qualified workforce who relied on their qualification to make a living. Both winners and losers were placed almost overnight in stressful competition without clear rules and virtually no protection by law enforcement and judicial institutions. The state had little capacity to enforce work safety or

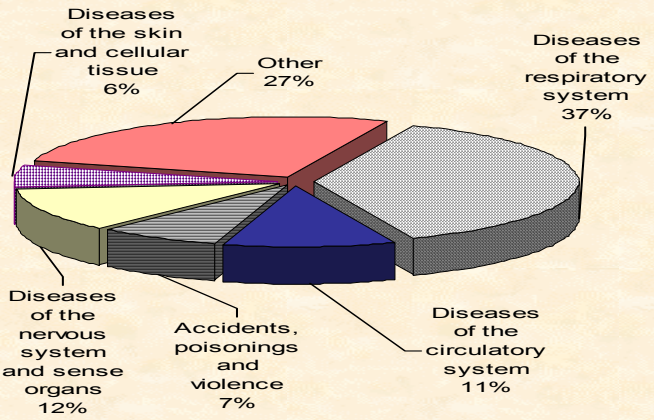
[3] World Bank *Bulgaria: Poverty Assessment,* Washington DC, 2003

[4] Eurostat measures poverty rate as the percentage of households with incomes below the threshold of 60 percent of the median income

[5] Ministry of Health *The Health of the Nations in the beginning of 21st century,* Aug. 2004, (in Bulgarian language) p. 18

environmental standards. Higher social and economic stress combined with lower protection of workers and citizens led to sharp deterioration of quality of life and health environment for a large part of the population.

Fig. 3 Registered cases of diseases in health Facilities in 2002



Source: Ministry of Health

Many young families would leave the country in search of better employment opportunities or for study abroad. A large part of the emigrants, especially short-term and seasonal workers would be covered neither by the Bulgarian health insurance system nor by social and health insurance abroad and would pose additional pressure on the nascent and weak domestic health insurance system. Many of them would come to Bulgaria to get medical and dental services.

It was not before the process of accession gained speed that some of those initial shocks on the health system of transition started to ease off. The most prominent among them perhaps are the improvement in the monitoring and control on environmental standards and safety-at-work regulations. Of course there is still a long way to go in these two areas as the transposition of EU norms is still not completed and enforcement is weak. But on balance these two areas together with the restructuring of the health financing are among the few advantages of transition and accession in the field of health care.

The overall picture of **the reasons for hospitalization** shows that the major drivers for the worsening health indicators are related to increased smoking, drinking and nutrition risks, environmental pollution, increased stress and risks of injuries and traumas. The latter are both injuries at work as well as road accidents.

The leader among those is the group of the respiratory diseases (fig. 3). Pneumonia is among the leading causes of death in this group accounting to about half of all lethal outcomes of treatment of respiratory diseases.

The share of psychiatric diseases is also on the rise. Statistical data, however, may be hiding the real size of the problem, as not all affected seek medical advice. Furthermore, even if they do seek it, not always their problem is adequately diagnosed. The MH reports that only about one in three patients in need of psychiatric help is adequately diagnosed and referred to a specialist by GPs. As this type of disease is not among the leading mortality factors, it remains outside the focus of statistics. Psychiatric and psychological problems however, often have heavier economic and social costs in terms of working disability, treatment costs and negative health effects on the surrounding people at work and at home.

Last but not least, the list of health challenges of transition includes **growing disability rates.** The number of disabled persons grew three times in the years of transition. The growth is partly attributed to the change in the legal definition of disabled persons. Nevertheless, the indicator of newly registered disability cases of 9.5 ‰ is far above the European average of 5.5 ‰, and one of the highest in the world (9th position of the 51 nations in the WHO 2001 ranking). Bulgaria's census data of 2001 point at about 265 thousand physically handicapped. According to NSSI data about 330 thousand people are certified with disability of over 50 per cent. NGO estimates of the number of physically handicapped are even higher, in the range more than 400 thousand people. About ¾ of all certified disability cases for pension purposes are in the range of heavy disability of over 70 per cent, with 35 per cent of all falling in the heaviest category of disability over 90 per cent (fig. 4). Term-wise, about ¾ of disability pensions are for a period of 2-3 years. The major causes for disability are again diseases of the circulatory system (37 per cent of new disability registrations), the bone and muscle system (14 per cent) the nervous system (11 per cent), etc. Those data may need to be treated with caution as there are allegations and evidence of abuse and corruption in the sphere of disability pension certificates.

Acquired Institutional Deficiency Syndromes

A large group of drivers of the above outlined deterioration of health indicators is related to deficiencies of public health management system. In a nutshell, institutional flaws can be summarized in three types of shortage:

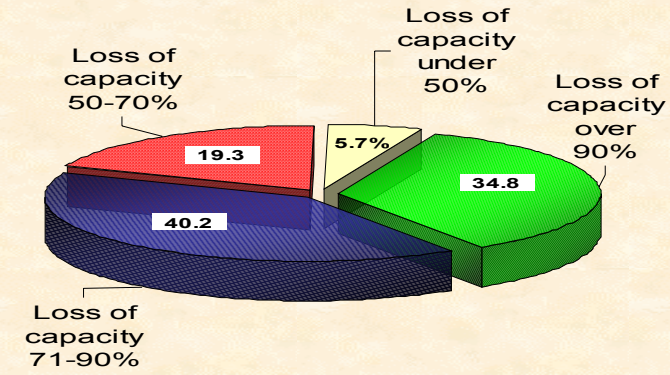
- Shortage of political will for timely launch and completing of health sector reforms.
- Shortage of public funds
- Shortage of public health management skills

Delayed and incomplete reforms

It was not before the first ten years of transition passed in strategic planning and consultancy projects that health care reforms actually started in 1999. Furthermore, instead of pursuing a comprehensive market-based reform, Bulgaria chose a halfway shift to a system in which only the provision of the outpatient sector is entrusted to the private sector. Hospitals remaind public. Insurance in fact is also public as private and public providers depend on the compulsory state insurance run by the National Health Insurance Fund.

Under the old system health care was provided by the state through polyclinics and hospitals. Health services and medicines in

Fig. 4



Source: Ministry of Health

them were free of charge and financed by the budget. Medicines for home use were heavily subsidized. The disadvantages of this system are well studied and well known. They are related to the fact that central allocation of health care funds and lack of competition in service provision reduce efficiency, and do not provide incentives for better services. In this context, private health insurance is superior in terms of the efficiency incentives to the providers of services and medical insurance. Market competition puts medical staff under pressure to provide better services at lower cost, while encouraging insurers to offer competitive insurance packages. Most advanced market economies rely on privately run insurance system where customers and their employers contribute to private health insurance funds, which in turn reimburse all or part of the cost of medical services.

The disadvantages of this system are related to market inefficiencies. The markets alone can hardly deliver the outputs of active healthcare policies such as high immunization rates, wider access, coverage and protection of the risk groups, which usually remain outside the coverage of the private insurance system. For public economists, active health care policies, such as prevention of diseases and reduction of health risks, are good illustration of positive externalities. In this case social benefits exceed private costs, which is the economic rationale for the intervention by the state. The argument is that considerable gains in health safety for society at large are hardly possible without providing access to health care for the low income groups which are most exposed to health risks. Furthermore, the insurance and health market usually require some degree of state regulation and oversight in order to ensure consumer rights and health care standards.

Therefore many countries opt for some kind of mixed system, trying to unite both the state's responsibilities in regard to health policies and health and social protection of the most vulnerable groups of society with the opportunities that the market creates for a choice of a service provider according to the consumers' ability to pay. The state retains the major responsibility for the regulation and supervision of the insurance and healthcare market in order to guarantee some standards of services and to protect consumer rights. These include licensing and oversight of the insurance providers and accreditation and supervision of healthcare providers.

Bulgarian health reform is also a mix between public and private responsibilities. The state chose to run the insurance system, while outsourcing the provision of health care to public providers. Thus, the Bulgarian healthcare system is state-run insurance system (institutionalized in the National Health Insurance Fund) with private provision of outpatient services and public provision of inpatient services. The reform launched in 1999 introduced three levels of health services. The first level comprises the services of the general practitioner (GP) as a first point of entry into the system, where the visitor receives medical check-up treatment and medicine prescription, or is referred to a specialist or hospital. The GP can issue as well a document authorizing the absence from work due to sickness (*bolnichen list)*. This document is the certificate for temporary disability, based on which the NSSI pays to the employer social insurance compensation for each day of absence starting from the second one. The second level of health care comprises medical (and dental) services provided by specialists. They belong to the outpatient service sector, even though the cabinets and specialized labs may physically be

located in the hospitals. If their intervention is not enough they can refer further the patient to a hospital or other inpatient healthcare entity.

The tertiary level includes inpatient services, mainly hospitals and dispensaries. They are covered by medical insurance only when the patient has the necessary referral from a GP or a specialist. The number of referrals issued by a doctor however is subject to monthly ceilings. Customers often report that they have been denied specialized service or deferred to the next month because the GP has run out of referrals.

Financing

Like most health reforms, the Bulgarian one has been driven by and aiming to solve one major problem: ***shortage of public funds***. The share of public spending in GDP is in the range of 4-5 per cent of GDP. (Table 3).

Table 3.

Public Expenditure on Health in Bulgaria

	1999	2000	2001	2002	2003	2004	2005
Public health exp. (% of GDP)	3.9	3.7	4.0	4.5	4.8	4.6	4.8
% of total public exp.	9.8	8.6	9.6	11.3	10.1	10.5	11.1
share of social insurance in public health exp.	9.9	13	35.8	40.6	51.6	63.2	76.1

Source: NSI

International comparisons based on public consumption expenditure indicate that Bulgaria has the lowest public spending on health in the region except for Albania (see table 4). The gap in financing is even more pronounced in terms of per-capita spending, where Bulgaria has the lowest indicator among all EU NMS. It is also among the lowest on the Balkans.

The low level of public health spending prior to the reform required a radical change in the way health care is financed. The great success of the health reform is that in about 6 years the system shifted from predominantly budget financing to insurance financing. In the center of this major move is the National Health Insurance Fund (NHIF) established in 1999. It started to reimburse GPs and specialists on July 1 2000. While transition to insurance financing in the outpatient health sector was completed fast, the hospital care sector took about five years. It started one year later, on July 1 2001, but until 2006 hospitals were financed jointly by the NHIF, the central and the local government. It was not until 2006, that public financing of hospitals came almost entirely from the NHIF.

Health insurance contributions are obligatory and are paid on a payroll basis in the amount of 6 per cent on insurance income with the larger share paid by the employer. Since the beginning of the reform the sharing of health-insurance contribution has been shifting from the employer to the employee, starting from 80:20 in 2000 to 50:50 in 2009.

Table 4.

Bulgaria's Public Health Expenditures in International Perspective

	consumption spending in percent of GDP*					per capita in USD (average annual rates)				
	1999	**2000**	**2001**	**2002**	**2003**	**1999**	**2000**	**2001**	**2002**	**2003**
Czech Republic	5.4	5.0	5.1	5.5	6.1	347	327	373	471	600
Hungary	5.4	5.0	5.1	5.5	5.8	250	231	258	348	495
Poland	4.2	4.0	4.3	4.4	-	177	172	210	234	248
Slovakia	5.2	4.9	5.0	5.1	-	196	186	193	228	318
Slovenia	6.7	6.9	7.1	5.8	-	628	640	683	751	930
Estonia	4.9	4.2	4.0	3.9	3.4	197	170	176	203	282
Latvia	4.1	3.5	3.4	3.3	3.3	114	107	110	129	155
Lithuania	4.5	4.3	4.1	4.1	3.9	145	148	160	197	267
Bulgaria	**3.3**	**3.3**	**3.0**	**2.9**	**3.2**	**63**	**58**	**69**	**88**	**104**
Romania	3.9	4.1	4.1	4.2	4.1	54	59	65	79	100
Albania	2.3	1.7	1.7	1.8	-	35	33	37	41	49
Croatia	5.3	6.5	5.4	-	-	333	330	317	325	413
Bosnia&Herzegovina	-	-	-	-	-	76	58	54	62	85
Serbia-Montenegro	4.1	3.6	-	-	-	45	34	54	86	136
FYR Macedonia	5.0	4.5	5.8	5.0	5.4	98	91	86	107	136

Source: * TransMONEE 2005; **WHR 2006

Private health insurance is allowed and available, but is still insignificant. World Health Report 2006 data show that all the public spending of 2-3 per cent of GDP that complements public spending on health is in fact out-of-pocket money paid by the patients (table 5). Moreover, this figure does not include informal payments. Thus, the burden of health financing that falls on the client in Bulgaria is much heavier than that in comparator countries.

Table 5.

Bulgaria's public and private expenditures on health

Indicator	1999	2000	2001	2002	2003
% of GDP	6	6.2	7.2	7.9	7.5
o/w public (%)	65.4	59.2	56.1	56.6	54.5
private(%)	34.6	40.8	43.9	43.4	45.5
o/w out-of pocket (%)	99	99	99.2	98.4	98.4

Source: WHR 2006

The question here of course is: if the patients in Bulgaria pay almost the same amount of money above and under the table as the government, why do they not buy private health insurance? The share of pre-paid plans in private health expenditure according to the WHR 2006 report is under 1 per cent. The issue of the failure of the private health insurance market is of primary importance for the future chances of the reforms.

On the supply side, the explanation lies in the fact that private insurance can hardly compete with the state insurance as it cannot offer much better services. From the patient's perspective, the advantages of complementing the mandatory state insurance with a private one is mainly in the wider choice of healthcare service provider, as well as

in the reimbursement of all prescribed medicines. Both these advantages have been gradually reduced with consumer choice and medicine coverage expanding in the NHIF system as well. Thus, private insurance cannot offer much different packages from the NHIF. Both the NHIF and private health insurance funds rely on the same health service providers, but the latter depend almost entirely on the contracts with the NHIF.

While the extra benefits of having a separate prepaid plan are not so big, the extra costs are substantial. First, it does not eliminate the obligation to contribute to the state insurance scheme. Second, there is not much tax advantage for the individual buyer of private insurance. The tax deduction from the personal income tax base for pre-paid plans is up to 10 per cent of the base. Finally, it may not be easy to buy attractive pre-paid individual plan. Private health insurance market in Bulgaria is still nascent with limited risk assessment capacity and targets predominantly corporate clients and individual travelers. In fact few people have private health insurance, unless it is a part of employer's package.

Incentives to employers to buy pre-paid plans for their employees are fairly limited. These expenses are treated for tax purposes as social expenses, which together with other private insurance plans have a common ceiling of BGL 40 (around EUR 20) per person per month. Above that limit they are taxed as social expenses with a flat rate of 17 per cent in 2005. With a corporate income tax rate of 15 per cent, employers actually have insignificant tax incentive to buy additional private health insurance. The reduction of this tax to 12 per cent in 2006 increased a little bit this incentive, but the impact is still to come.[6] Therefore some private health insurance funds try to attract corporate clients by providing the obligatory safety-at-work monitoring and medical check-ups with health insurance.

In balance, the state has put tight limits on the expansion of private health insurance. This policy leads to crowding out of private insurers from the market and reduction of competition. Instead of drawing some measures to encourage private health insurance, the new health strategy concludes that this market is underdeveloped and inefficient and therefore calls for more stringent regulations and control on the quality of services reimbursed by the NHIF. Obviously, a radical change in the current pattern of public-private partnership is one of the biggest issues of the reform effort, which remain largely ignored.

Box 1. Legal Framework

- Law on Health (2004), amended 2 times in 2005, successor of the National Health Act (1973) amended 22 times between 1991 and 2003
- Law on Health Insurance (1998), amended 32 times
- Law on Healthcare Entities (1999) amended 6 times
- Law on Human Medicines and Pharmacy (1995), amended 18 times
- Law on Narcotic Drugs and Precursors (1999) amended 6 times
- Food Safety Law (1999) amended 2 times
- Law on Healthy and Safe Conditions of Labor (1997) amended 8 times
- Law on the Professional Organizations of Medical and Dental Doctors (1998)
- Law on the Professional Organizations of Nurses (2005)
- Law on Transplantation of organs, tissues and cells (2003)
- Law on Blood and Blood Transfusion (2003)

[6] Thus on 100 leva paid for health insurance in 2005 an employer will spend 10.2 leva on social spending tax, and will save 16.53 leva of corporate income tax, the net incentive being 6.33 leva, i.e. 6.3% of voluntary health insurance expenditure. In 2006 the net tax benefit increased to 8.9%.

Public health management: legal and policy framework

Public health management policies are shaped by a relatively recent ***legal framework*** of about a dozen laws (Box 1). These laws are implemented into practice by the annual Laws on the state budget and the Budget of the NHIF and a large number of implementing regulations and Ordinances by the Council of Ministers. That wide and complicated regulatory framework has been constantly amended in the process of reforms and transposition of EU regulations. The Health Insurance Law alone went through 32 amendments in 7 years. This constant law-making under external pressure, which was rarely accompanied by regulatory impact assessment and conformed with the capacity of the administration and the legal system to enforce it, opened a lot of loopholes and vertical (among primary and secondary legislation) as well as horizontal (among regulations in the various healthcare areas) inconsistencies among the separate components of the legal framework. Thus, it raised serious challenges to the synchronization of the reform effort and the relations between the various institutions and stakeholders. Furthermore it created large opportunities for administrative discretion and corruption. Part of the bureaucratic chaos in the provision of health care services since the start of transition can be attributed to excessive law-making.

Box 2. Policy Strategies and Programs

- National Health Strategy 2007-2012
- National strategy on supply of medicines 2004
- Invasive Cardiology, 2002 - 2008
- Prevention, Treatment and Rehabilitation of the Drug Addicts, 2001 - 2005
- Prophylactic Oncological Screening, 2001 - 2006
- National Program for psychic health reform (2001 – 2010); and National Policy for Psychic Health (2004 – 2012 г.)
- National Program for nephrology, and dialysis treatment
- National program for control on tuberculosis (2004-2006)
- National program on reducing of smoking 2002-2006 г.
- Suicide Prevention
- National Action Plan Environment – Health
- AIDS and Sexually Transmitted Diseases Prevention, 2001-2007 г
- Osteoporosis 2006 – 2010 г
- Elimination of Measles and Rubeola, 2005 – 2010
- Food Safety Strategy, 2000

Health policy priorities are set by about 25 public health strategies and programs. They address what is perceived as the highest health risks: AIDS, tuberculosis, measles and rubeola, cardiology, cancer screening, osteoporosis, psychic health, suicides prevention, drugs and tobacco, food safety, and transplantations. Many of these are part of various international health campaigns and donor projects. According to the 2006 National Health Strategy prophylactic programs are worth a total of BGL 18 million (p. 17), which is less than 1 per cent of the annual public health budget, in 2006.

These priorities are implemented by the Ministry of Health, but other agencies have also leading responsibilities. The Ministry of Labor and Social Policy for instance, has primary responsibility for the enforcement of the safety-at-work standards; and the Ministry of Ecology enforces the environmental standards.

In addition there are about a dozen of specialized agencies which have educational, informational and monitoring functions. Many of them have been established under a number of administrative capacity building donor projects in the last 16 years. From hindsight and lacking real restructuring, most of them seem necessary but expensive inputs in the health reform, the benefits of which are yet to come.

Quality of healthcare services is pursued through regulative controls rather than adequate financial incentives. The major instruments in this regard are the accreditation mechanism and the medical standards. The accreditation of the healthcare providers aims at ensuring minimum standards of equipment and qualifications for the list of services covered by the NHIF. These requirements are listed in the *Ordinance for the criteria, indicators and methodology of the accreditation of the healthcare facilities*, which is an implementing legislation to the Law on Healthcare Entities. The accreditation process, however failed to perform the function of a filter for the system – all old inefficient hospitals and medical centers were licensed. One reason for that is that coverage and access are more important than quality in a large part of the country. Another reason is that often local political and social considerations outweigh quality concerns. There are 24 medical standards, which regulate in details the requirements for the medical equipment, the necessary medical staff and qualifications and contain detailed definitions of the various syndromes covered by the standard and the corresponding interventions.

In brief the quality management relies heavily on stringent and detailed regulations, which require substantial enforcement costs. Outside the standards and accreditation, the money reimbursed by the NHIF is in no way related to the quality of services. Thus, with competition virtually absent, the medical practices and hospitals have no incentive to spend money on HR development, or investment in new technology and other quality-enhancing expenditures. The system is designed to attain some uniform minimum level of standards. At the same time enforcement is weak, as neither the Ministry of health nor the NHIF have adequate capacity to impose sanctions or to refuse accreditation of entities in the areas with limited coverage and access, where quality problems are most pronounced. With a system relying excessively on sanctions and given the weak enforcement capacity, policymakers find themselves in a vicious circle of intensifying regulations and controls with deteriorating compliance by doctors and mutual trust.

In result, the system suffers from ***excess capacity***, poor maintenance, inefficient utilization of resources and old diagnostic and treatment technologies. The number of beds was reduced and the average utilization rate (bed-days per patient) has improved. However, this has not led to considerable cost optimization as the reduction of beds did not actually result in reduction of rooms and facilities. In terms of doctors per capita Bulgaria has always maintained very high indicator. But on the other hand there are a lot of vacancies, especially in medical specialists. Excess supply on one hand and concentration of doctors in the urban areas leads to the double problem of low wages and lack of motivation of medical staff and bad coverage. Additional human resource problem is the shortage of nurses. The major reasons are emigration of nurses to Europe and the undersupply by specialized colleges. The ratio in Bulgaria of doctors to nurses is about twice that in Europe and with rather grim prospects in the immediate future.

In the end of the day the outcomes of the reforms are still fairly disappointing for the majority of the Bulgarians both in terms of effectiveness (i.e. the results versus the proclaimed objectives) and in terms of efficiency (the results versus the cost of attainment). In terms of effectiveness, the reforms aimed at creating an insurance-based healthcare system, which provides equitable access and coverage together with consumer choice and competition between providers. Restructuring was announced to aim at a

system based on the principle “money follows the patient”, i.e. distribution of public funds according to the number of patients and activities, as well as according to the results.

The outcomes are far from satisfactory. The overall spending on health is not that low in international standards, but it is disproportionately distributed between state funds and individual payments with a large part of it going under the table. In balance, the average Bulgarian pays higher cost (in insurance money, formal and informal individual payments) than the citizens of other transition countries for worse services. The present day system ignores investment in new technology and in professional training. Health protection, prevention of diseases and prophylactics remain still outside the focus of the restructuring and are underfinanced and poorly managed. Last but not least, access to basic services for the most vulnerable groups of society is limited and uneven.

The outpatient service sector

Primary health care

Currently primary health care is provided entirely by private GPs operating under contracts with the NHIF. The NHIF started to reimburse them on July 1 2000. There are more than 6000 general practitioners (GPs) who operate mainly in individual practices (table 6). GPs can provide services either as natural persons (i.e. self-employed), or sole proprietors.

GPs get paid for their services by the NHIF and by the customer. Customer payment per visit is fixed by the law to 1 percent of the minimum monthly wage, which in 2006 amounts to BGL 1.60. There was a debate to eliminate this fee in 2006, but it is an important instrument to limit some of the unnecessary visits and to increase efficiency

Table 6.

Outpatient healthcare practices in Bulgaria 2004

Outpatient service providers	Number	Beds
Primary healthcare individual practices	5897	
Primary healthcare group practices	224	
Primary dental care individual practices	7758	
Primary dental care group practices	142	
Specialized medical care: individual practices	6422	
Specialized medical care: group practices	124	
Specialized dental care: individual practices	152	
Specialized dental care: group practices	1	
Medical centers	454	440
Dental centers	56	4
Medical and Dental Centers	44	21
Diagnostics and Consultation Centers	107	204
Medical Laboratories	828	

Source: National Center for Health Information

The payment by the NHIF to GPs is partly based on the number of registered persons (per capita basis); and partly on actually performed activities. Over the past 6 years the direction of the reform has been to shift financing from initially prevailing par capita monthly payments (about 85 per cent), to larger share of activity-based financing. Today, the latter component accounts for about 40 percent of the NHIF payments received by the GPs.

The per capita component still accounts for 60 per cent. All persons with medical insurance are required to choose and register with a family doctor. In the beginning there was a minimum requirement for a contract with the NHIF of 800 registrations per doctor, as well as some ceilings on the number of registrations. Later on both minimum and maximum thresholds were dropped. The NHIF distinguishes between patients with chronic diseases (dispensary patients) and other customers according to their age - over 65; below 18; and persons in the active age group between 18 and 65. Per capita monthly payments for each of these four groups are fixed annually in the NFC, and in 2006 are

respectively BGL 1.25, BGL 1.09, BGL 1.00 and BGL 0.72. The differentiated rate structure aims at taking into account the different GP workload and frequency of visits for the different client groups. The necessity of such differentiation however is doubtful, given the client's fee per visit, which is sufficient to reward doctors for heavier workload associated with aged and dispensary patients.

The activity-based component comprises payments per prophylactic examination of children or per immunization (falling under the national program 'Infant healthcare'), checkups for the pregnant under the program 'Maternal healthcare'; one prophylactic checkup per year for those aged over 18, and for incidental visit by an insured client who is not on the GP's list (temporary residents and visitors, etc.) Payments per checkups are from two to five times higher than per-capita based payments. GPs also receive additional payments for opening a practice in areas with bad coverage (position from the vacancy list) or other unfavorable conditions (location, transportation etc. infrastructure).

Despite the financial incentives, there are still problems of ***uneven coverage*** and poor quality of the services provided. In 2003 the average number of a GP's customers is 1472. In some north-east districts (*oblasti)* like Tyrgowishte and Razgrad, the average numbers exceed 2000, while in Sofia and Pleven for instance they are below 1300. The major policy tool that the authorities use to pursue a more even coverage is the National Health Map (NHM). It maps out the target coverage by regions. NHM implementation reports indicate large regional disparities, ranging from 67 percent in the north-east districts of Razgrad to 128 percent in the city of Sofia.

Most of healthcare resources are concentrated in cities and university centers, while in a number of scarcely populated areas, which are also the areas with lowest rates of employment and insurance coverage, GPs are in shortage. The special financial incentives applied by the NHIF are obviously not sufficient to offset the disadvantages of the fewer patients and activities that form the doctor's monthly income. The number of vacancies have been reduced over the years (from 1200 at the start to about 300 at present) and the implementation of the NHP has improved, but still wage disparities and related shortage of doctors in some areas remain a major challenge to public health management in Bulgaria. It is much more pronounced of course in the area of specialized medical services.

Persisting problems of coverage and access make the proclaimed objectives of better consumer choice and competition relevant only in a limited number of cities. As quality of service cannot be driven much by competition, the incentives become of paramount importance. Currently, a GP has financial incentives to recruit on his NHIF list retirees, to pay special attention to children and maternal prophylactics, as well as to have larger number of visits because of the per-visit payment by the customer. But s/he has also the incentives not to be very strict on allowing leaves of sickness; otherwise s/he may lose part of its patients, especially those lower wage patients, who are insured on the full amount of their wages like in the public administration. S/he has also the perverse incentive to prescribe some of the more expensive medicines when they are reimbursed by the NHIF. In some cases the doctor may have additional incentive to do so, by special promotional schemes practiced by manufacturers and distributors of medicines, including direct kick-backs based on prescriptions. However, s/he has little financial incentive to improve the quality of services and the health status of her patients. Such outcomes are hard to measure and consequently do not imply financial award by the NHIF. Similarly,

payments by the NHIF do not contain incentives to invest in new technologies and professional training. Thus, such expenditures are very limited in places where elasticity of demand for health care services is small, i.e. where customers do not have much chance to substitute the services consumed with those of alternative providers.

In the absence of competition regulatory standards are important instruments for protecting the right s of the patients. They are designed to allow to the market only those service providers who have attained some minimum threshold of equipment and qualifications. Standards also define the parameters of doctors' intervention. But an advanced primary healthcare hinges crucially on a more adequate system of financial incentives, which can put more weight on indicators of individual performance and activities among the determinants of the size of the GPs compensation package. Furthermore, as national health priorities are to improve the health status rather than to increase the visits to the doctor and the treatment services provided, much more priority should be given to prophylactics and prevention activities, including immunization. GPs should be rewarded by the NHIF or the budget based on their contribution and outcomes of their activities in fulfillment of the national health programs.

Specialized outpatient services

There has been substantial progress in the restructuring of specialized healthcare. The number of specialized practitioners increased from 4752 at the start of the reform to about 6400 individual practices; and 124 group practices, about 500 medical centers, 107 diagnostics and consultations centers (DCC) and 828 laboratories (table 6 above). Most of the former polyclinics in the cities have been transformed into DCC and medical (dental) centers and rented out by the municipalities to specialists and GPs at fairly reasonable rents.

Despite those improvements, equitable access to specialized services is even more problematic than access to GPs. Regionally the shortage is most acute in the northern regions of Silistra, Razgrad and Rousse, which have 0.5 physicians per 1000 insured persons. For comparison, in Sofia this indicator is three times higher: 1.7 per 1000 insured persons. Further to regional disparities, there is shortage of some specialists. Actually about 80 percent of all NHIF contracts cover about one third of the medical specialties. Specialty-wise, there is shortage relative to the targets in the national health map of specialists in six of these groups – cardio-surgery, pediatrics, endocrinology psychiatrics and skin diseases. The affected regions are those of Razgrad, Silistra, Smolyan and Shoumen[7]

Like GPs, specialized physicians are self-employed with the NHIF being their single most important formal source of income. It reimburses them on per-visit basis. Specialized services in the mass category are reimbursed with BGL 12 (EUR 6) for an initial visit and half that money for the second visit without any reimbursement for subsequent visit. The highly specialized and laboratory services have a detailed reimbursement rate list, which is included in the annual NFC. A physician can claim payment for secondary visits up to half the amount of registered first visits, (except for pediatrics where the HNIF reimburse second visits up to the number of the first visits). Furthermore physicians charge customer fee of 1 per cent of the minimum monthly wage,

[7] Ministry of Health, 'Report on the Health of the Nation in the Beginning of the 21 Century. Analysis on the Reform in Healthcare', Sofia, August 2004

as well as a non-fixed charge for services that are not covered by the NHIF. The number of visits to specialists is subject to regulatory restrictions in the form of monthly ceilings on the number of referrals that can be issued each month by a GP or a specialist.

This structure has major deficiencies. First the quantitative monthly limits on the number of referrals restrict customers' access to specialized services. Second, it shifts the cost of the visits after the first one to the customer, thus discouraging patients and physicians from follow-up checkups and complete treatment. If a good specialist can reach the ceiling by first visits only, s/he would not have much incentive to check the result of the prescribed treatment, unless the cost of these subsequent visits could be covered by the patient. Furthermore this practice raises the overall cost of the medical services as it creates a pervert incentive to refer the client to a hospital rather than to solve the problem in the outpatient sector, where costs are lower. This deficiency is extremely pronounced in some specialized interventions, which were shifted in the inpatient phase even though they can be performed and in the past actually were performed in the outpatient practices. Some biopsies are a good example. They require hospitalization, which seems to be designed to channel easy insurance money to hospitals rather than to optimize costs.

Anecdotal evidence and press reports often show that GPs and specialists run out of referrals by the middle of the month and start postponing their patients' visits to specialists to the beginning of the next month. Part of this shortage of referrals may probably be attributed as well to selective services and extortion of bribe money by some physicians. *Finally*, such flat rates per visit do not account for the different cost of the various specialized services and checkups. Therefore, the payment mechanism in the specialized outpatient health care has been subject to repeated adjustments and refinements. The direction however has been towards increased dependency on the NHIF and increased negotiations and transaction cost, rather than allowing some differentiation according to the nature and the cost of the procedures by co-payment by the customer over a base reimbursement rate.

Dental insurance coverage in Bulgaria is fairly limited. The NHIF covers a small number of interventions, mainly for children. In those cases reimbursement is about 80 per cent of the cost agreed in the NFC for patients below 18 and about 50 per cent for those above 18. Thus, dental care costs fall almost entirely on the insured persons.

Apart from medical, dental and lab services, the outpatient services reimbursed by the NHIF also include a part or the whole of the cost of medicines according to a list which is decided each year.

To sum up, the system of outpatient healthcare suffers from excessive regulation and transaction costs, deficit of mutual trust between the state and the service providers and excessive controls. Usually the NFC is finalized very late in the year and over the years physicians were providing services without knowing what they are worth.

The hospital sector

Inpatient services are provided through a system of central, regional and municipal hospitals. The number of inpatient healthcare providing institutions in Bulgaria exceeds 300. Of those 257 are hospitals and 49 are dispensaries (table 7). At the start of the reform in 2000 all of them were converted into joint-stock commercial companies owned by the state (central and local governments). About 20 university hospitals and national health centers remained an exclusive property of the state. It retained as well the majority share (51 percent) in the 28 regional hospitals. The remaining 49 per cent were split among the municipalities in the respective region. There are 102 municipal hospitals wholly owned by the municipalities. The number of private hospitals is 40 with 819 beds only. Privatization of the hospitals has not been among the priorities of the Bulgarian health care reform.

Table 7.

Hospitals and hospital beds by type of healthcare in Bulgaria 2004

Inpatient care facilities	Number	Beds
Hospitals	**306**	**47709**
General (multi-profile) hospitals, o/w:	**127**	**29665**
for active treatment	126	29545
for post-treatment and rehabilitation services	1	120
Specialized hospitals, o/w:	**70**	**8723**
for active treatment	28	3743
for post-hospital and sanatoria services	9	585
for post-hospital and sanatoria and rehabilitation services	9	591
for rehabilitation	24	3804
Psychiatric hospitals	**11**	**2750**
Other inpatient health service entities	**2**	**110**
Hospitals under other central government agencies	**7**	**1530**
Private hospitals	**40**	**819**
Dispensaries	**49**	**4112**
Lung and respiratory diseases	13	787
Skin diseases	12	208
Oncology	12	1593
Psychiatric	12	1524

Source: National Center for Health Information This breakdown does not include child care facilities and other medico-social institutions, hospices, sanatoria, emergency aid centers and other medical institutions and facilities and the beds in them as well as the beds in the outpatient specialized facilities. If they are included the total number of medical care centers exceeds 380, while number of beds is about 53500.

The restructuring of the inpatient service sector has been slower than that of the outpatient service. When the NHIF started to reimburse inpatient services on July 1 2001, its share in the hospital budgets was about 20 per cent. In 2006 it covers about 90 per cent of the public expenditures in the hospital sector. The hospital reimbursement system is based on the so called ***clinical pathways*** (CP). These are sets of precisely fixed requirements and instructions for hospital diagnostic and treatment procedures and

interventions according to the patients' syndromes. The CP consists of the following elements: the minimum hospitalization period for each intervention or service covered by the CP; the codes of the diseases and procedures according to the ICD 10 and ICD 9CM; the minimum contract requirements, including hospital units, equipment and facilities and specialized physicians; the indications for hospitalization and treatment including treatment algorithms, instructions on completing procedures, post-treatment rehabilitation and work regimes. Over the years the NHIF coverage expanded from 30 CP, covering 158 diagnoses in 2001 to 299 CP covering about 7500 diagnoses in 2006.

The expansion of insurance coverage allowed that starting from 2006 the subsidies from the central and local budgets for most hospitals and dispensaries were eliminated and the NHIF became the only source of financing of hospital healthcare. IN 2006 the MH retained financial responsibility only for the psychiatric dispensaries, the transplantation programs and activities under some national health care programs. Thus from a total hospital public sector budget of about BGL 835 million in 2006, BGL740 million is to come from the NHIF, and BGL95 million is to come from the Ministry of Health budget.

The expansion in coverage and the completion of the transition to insurance-based financing are the two major positive outcomes of the hospital care reform. There are however, several major pressing problems that make the hospital sector in Bulgaria far from the efficiency in the advanced countries.

Most pressing is the chronic problem with hospital arrears to suppliers and their indebtedness. Its origins and drivers are both in the insufficient coverage by the NHIF for some expensive CPs and in the soft budget constraint and lack of financial discipline in some hospitals, who have got used over the years that irrespective of their debts the MH would bail them out in the end of the year and cover their unpaid bills. The shift to exclusive insurance-based financing is likely to reduce such behavior by hospitals, but given that some clinical paths are not adequately valued, the problem is likely to persist. In 2005 the hospital sector ended with about 200 million worth of arrears, which is close to 25 percent of its 2006 budget. There is no agreement yet between the NFC parties as to how this problem is going to be resolved.

Of course even more important than the issue of who is paying this debt is the issue of its origins and its prevention in the future. The current system of CP-based financing has some major flaws, which impede the efficient use of resources. The valuation of some CP suggest that there are still some redistributive elements, designed to keep small hospitals alive rather than to reimburse actual CP cost. Thus, some basic CPs, which are crucial for the majority of the hospitals seem overvalued in comparison with the highly-specialized interventions requiring considerable investment. Therefore, unless the patients is ready to pay out of his pocket, those having the capacity to offer these services do not have much choice other than to refuse it in order to avoid losses. Thus, equity and access concerns in the reimbursement structure of CPs reduce the range of services provided by the hospital sector.

There are some rigidities in claiming expenses based on CP, which also may result in overspending. Thus, the hospital expenses for a CP can be reimbursed only if all procedures and interventions that form the CP are completed. Even if they or some of them turn not necessary in the course of treatment, the hospital should perform or often just report them if it wants to avoid losses on the procedures actually performed. This all-

or-nothing principle of reimbursement leads to overspending, or claiming reimbursement under a CP, from which the treatment might have deviated in the interest of the patient. Moreover such a risk creates a pervert incentive that the incoming patient is registered under the most expensive CP possible as an insurance against the need to apply more expensive interventions than contained in the CP corresponding to the initial syndromes.

Last but not least, the CP financing is based on agreed framework between the NHIF and the respective hospital budget rather than actual costs of the services provided. The budget framework is drawn in line with each hospital's capacity to accept patients under each of the clinical paths contracted with the NHIF. This capacity is evaluated based on past record and available equipment and expertise. Hospitals can claim overspending above that framework only up to 5 per cent.

These hard budget constraints are a countermeasure against overvaluing of expenses and/or accumulation of arrears. It is designed as well to allow more equity, transparency and accountability in the distribution of resources among hospitals. In the past, a university hospital used to receive more money for the same CP than a small municipal hospital due to equipment and expertise differences and quality of services provided. Furthermore, there were often accusations that some heavily indebted elite hospitals were readily bailed out and their bills covered to the full by the ruling elites who used them or had political connections with their managers. Given the large arrears accumulated by the hospitals, the MH had discretion on which hospital to bail out first and to what amount.

Since 2006 all hospitals receive the same amount of money for the same CP and the overspending is subject to a 5 percent limit. The rationale is that the NHIF covers financially the minimum standard of the respective CP. If the actual quality and cost exceed this, the extra cost should fall on the customer provided s/he can choose between the basic and more qualified services. This implies that hospitals have price lists and patients know what is the part covered by the NHIF and what is the part that is to be paid by themselves.

The adequacy of hospital financing by the NHIF is very important in the context of other basic problems of the hospital care system such as low motivation of the medical staff and wide dissatisfaction from their wages. Unlike their colleagues in the outpatient sector, inpatient physicians are employed by the hospital. Their income and conditions of work depend on the quality of the hospital management. In the recent years the differential between the incomes of the doctors in the outpatient sector and those in the inpatient sector has grown significantly. This led to solutions which contain some conflict of interests. For instance all specialists work in a hospital, but at the same time have private specialized practices. This mixed 'public-private' workload has been typical for most hospital doctors and is not always in the interest of the patients or the hospital budget.

Therefore, the central problem of low wages in the hospital sector has been addressed mainly through decentralization and liberalization of the system of management, accountability and through expanding the autonomy given to the management of the hospital. The principal in all cases is the state (MH) or the municipality, which appoints the board of directors and approves the framework for employment and remuneration levels. Nominally, the board of directors has considerable discretion in regard to remuneration and investment decisions. The NFC requires that at

least 40 percent of insurance money should be distributed in the form of wages. Given the shortage of funds however, managerial autonomy is fairly limited. The management has the freedom either to distribute most of the subsidy and NHIF reimbursement as remuneration at the expense of maintenance and medicine expenditures, to accumulate arrears to suppliers or to shift part of the burden to their customers by extracting cash payments for medicines and services, etc. In fact, all these phenomena shape the reality of the hospital care in Bulgaria.

Despite its advantages in terms of simplicity, and accountability, the shift to hard budget constraints generates some new risks to the system. First, even though nominally it is insurance-based financing the NHIF disbursement ceilings build into the system strong elements of central budget allocation. The NHIF allocates the insurance money rather than the MH allocating the funds from the general revenues. The hospital does not have incentives to provide more services than contracted with the NHIF as it may not be paid for them. Second, the system does not contain good drivers for finding the optimal balance between spending on wages, medicines and materials in each CP cost structure. Without regulation about the minimum expenses for medicine that goes for each CP claim to the NHIF, this system is prone to abuse as the hospital management may allocate all receipts from the NHIF to salaries, while making the patients pay for the medicines that are calculated in the cost of the medical path. Furthermore, the system does not provide incentives to invest in equipment, as the NHIF allocation would not necessarily be revised accordingly. Other things equal, new technologies raise current costs for consumables, maintenance services and training, which may not be accordingly reflected in the NHIF financing and come at the expense of wages.

The road ahead

The overview of the restructuring of the healthcare sector in Bulgaria shows that the shift to insurance-based financing is more or less completed. Many persisting problems however, indicate that the reform has not yet delivered optimal solutions. There are several pressing challenges that need to be addressed in the short run.

Firstly, there is unfinished agenda in the restructuring of the outpatient service sector. It concerns above all the problems of access and coverage as well as the optimal balance between per-capita and activity based financing. More money needs to be allocated to prevention and prophylactics in order to reduce the risks and the burden of the health insurance and inpatient service sectors. The clue is in increasing the coverage and access to primary and especially specialized health care services to cover better social groups at risk. Financial incentives designed to attract medical staff to these groups and remote and rural areas need to be increased and better targeted. The efficiency and outreach of the various national health programs is also to be reconsidered through cost-benefit analysis.

Secondly, large part of the problems of health service provision stems from the incomplete coverage of the insurance system. It leaves those groups, that are most exposed to health risks outside the scope of the system. The state needs to find a solution for those that have lost insurance rights and to optimize payroll tax collection policies rather than to punish those who have little responsibility for irregular contributions by their employers.

Thirdly, public policy and regulation in the field of medicine supply and procurement needs to go through major reassessment and restructuring. Guarantees are needed that hospitals spend the appropriate amount for medicines for each of the CP contracted with the NHIF, so that medicine costs do not fall on the insured persons. The list of medicines for outpatient use reimbursed by the NHIF should be negotiated including quantities and prices in most transparent way. A more activist price monitoring and control on this oligopoly market could be considered.

Fourthly, the most pressing problems of healthcare stem from the impasse in the hospital care sector. Hospital financing is still far from optimal, with NHIF refunds reflecting supply potential rather than actual demand and cost of services. This calls for reconsideration of the financial relations between hospitals and the NHIF.

Last but not least, the role of the private sector and the nature of private-public interface in the healthcare sector need to be reconsidered. The private sector is still kept away from this market of health services.

The last two points are the core of the stalling reform in the sector in the short run and correspondingly are given more attention in the following three paragraphs.

Clinical pathways vs. diagnostically related groups

From the outset the introduction of the clinical pathways was seen as a stepping stone into the internationally accepted system of diagnostically related groups (DRGs). They form the core of the so called case-mix approach in the prospective financing of hospital services. These are diagnoses and procedures which can be grouped together

based on proximity of inputs and cost for the purpose of hospital contracts with health insurance funds.[8]

DRGs are believed to be superior mechanism to CP for several reasons. It is a methodology of putting into standard framework the value of the output of the hospital with a breakdown of the cost of the various inputs. To make the system operational all procedures and activities are classified into groups of similar costs. All expenses are recorded and codified according to this classification. As all hospitals use the same codes for defining and measuring their output, this allows better measuring of the share of the separate hospital units in the prospective medical service provided, and hence - more equitable distribution of health insurance funds. Thus, they are more flexible instrument for valuating and reimbursing the actual costs of the services provided. As already mentioned, departure from the initially assigned CP may be costly and cause losses. Actual treatment often deviates from the initially assigned clinical path, which may lead to substantial differences between CP and actual treatment, i.e. between actual spending and reimbursement. This creates perverse incentives for doctors to accept patients under the most expensive clinical path in order to make sure that they would not be at a loss. The DRGs allow more precise accounting and databases of hospital care and costs on one hand and more financial flexibility in the course of the treatment. Thus they are believed to narrow the gap between NHIF financing and actual hospital costs. Furthermore, the CP contracts reflect the assessed capacity of the hospital to provide services rather than the actual customer's demand for services. It is more a supply-led instrument of healthcare financing relative to the DRG, which allow an allocation of resources closer to actual demand for services. In other words they are believed to shift the system from input-based financing to output-based financing.

The appraisal and preparation work on the introduction of DRGs in Bulgaria dates back to 1993, i.e. 7 years before the launch of the health insurance system. A number of projects financed by USAID, the World Bank and the PHARE program provided the technical and expert work needed for their introduction.[9] Among the major outputs in the subsequent 12 years of intensive consultancy work are the translation of the International Classification of Diseases, the testing of the codification and accounting reporting software in an ever growing number of pilot hospitals, drafting of detailed strategies, road maps and action plans for the introduction of the DRGs and training of trainers and of accountants and hospital managers etc. etc. The latter is quite understandable as for the12 years of training a large number of the trainees may have been retiring without having the chance to see the system operating. Most of the work has been done with the consultancy assistance of 3M of Switzerland. 10 years after its first contract in Bulgaria 3M reported 640 581 patients' records in 40 pilot hospitals and training of 1585 trainers and submitted an updated roadmap for the introduction of DRGs in 2005-2006. According to that program, in 2005 all hospitals should have been covered by the DRG database reporting and accounting system and the financing itself should be introduced on a pilot basis,

[8] The idea of DRGs originated in Yale University in the late 1960s after being successfully introduced in New Jersey in the 1970s, in 1983 becomes universal in the US. This first version has 24 main diagnostic categories comprising 470 DRGs. Today depending on the grouper software the number of groups ranges from 470 to 1500.

[9] The first USAID project dates back to 1994 and involved two consultancy companies 3M and AVT Consulting.

while in 2006 all hospitals were expected to shift to DRG-based financing. After much donor and technical assistance money has been spent on preparation of the introduction of the DRG approach, the new health strategy published in 2006 however, still does not contain clear roadmap to the transition of this more precise and flexible form of insurance financing.

Equity, consumer choice and competition

Reforms so far have been centered on exclusive and universal state insurance. Little is done to complement the system of compulsory health insurance with private insurance, to allow consumers to take their health in their own hands. The state is to take responsibility mostly for those in need, i.e. it needs to ensure basic healthcare standards. Better services are usually ensured through private insurance according to the customers' ability to pay. This will increase consumer choice and allow hospitals to compete and attract patients. The responsibility of the state is to encourage private health insurance through adequate incentives and most favorable business environment. Currently there are limited incentives for voluntary health insurance, and the buying a private plan does not reduce substantially other tax liabilities, or health insurance contributions. Rather than raising the rate of compulsory contributions the state may find it more efficient to provide incentives to employers and employed and self employed to compliment NHIF insurance with other private insurance. This would be a good move towards better private-public partnership in healthcare reform. The state's responsibility in such a health system includes as well oversight on the insurance and health service market so that consumers' rights are adequately protected.

A wider consumer choice of quality of services should be entrusted to the market rather than to the regulations as is the case now. Hospitals' income should depend on their ability to attract patients through latest technology and good specialists rather than on their contract with the sole state insurer. This implies different management skills by the health service providers, including investment project appraisal and management and new attitude to clients, including clearly set price policy. Those hospitals where expenses are higher because of better equipment or highly-paid specialists should make it clear to the consumer what part of the expenses is borne by him and what part is reimbursed by the NHIF. This will encourage as well the purchase of additional pre-paid health plans.

This implies as well new management that attaches higher priority to the patient rather than the NHIF. Of course if a hospital is rational business agent, the only definition of a client that makes sense is related to the source of money, i.e. the client is who pays, or on whose choice the amount of receipts depends. In the case of the Bulgarian healthcare system the latter still depends to a larger extent on the National framework contract, i.e. on union negotiations with the NHIF, rather than on customer choice. In brief, the state in the face of the NHIF is still more important client for the hospitals in Bulgaria than the patients that pay for their insurance.

It is worth noting however that the capacity of the market should not be overestimated. The above-mentioned project-management and customer-satisfaction skills are in shortage in present day public hospital sector after long years of budget financing. Moreover , this is not a market where one can rely much on competition between service providers especially out of the university and city centers. Therefore the concept of consumer choice may have more relevance for these medical centers rather

than for most of the territory of the country, where customers have limited access to only one hospital or diagnostic center. Most hospitals due to their specialization or location operate in monopolistic or oligopolistic position on the market and may abuse the opportunity to complement NHIF financing with price list for the various services. This is a market of services, which means that the wage component has large weight in the end-user price, which may exceed 50-60 per cent. Given the lack of competition, price differences may reflect higher wages, which in turn may not always reflect higher qualifications and skills, or the use of new technologies, but rather lower demand elasticities of healthcare services. In brief, doctors may just cash out on the lack of consumer choice. But if they do it anyway under the table, a price list for all services is much better and efficient instrument to optimize costs than the current system of widespread informal payments for hospital services.

Advanced health systems try to find the optimal balance between market choice and incentives on the one hand and the responsibilities of the state, on the other. Usually the state takes primary responsibility for improved coverage and access for the groups that are most exposed to health risks. Second it manages the pursuit of national health priorities, such as active prevention, immunization and prophylactic policies,,the outcome of which are monitored through the standard indicators. The objectives of wider consumer choice are entrusted to the private sector. In the context of Bulgaria this would imply more active involvement of the private sector in the provision of inpatient services and individual or collective pre-paid plans. The state has regulatory and control responsibilities on both the insurance and the health service markets, but the current balance between incentives on one hand and controls and sanctions on the other needs to be redressed in favor of better-targeted incentives.

Appendix 1.

Bulgaria's basic demographic indicators in regional comparison 1994-2004

	Growth rate 1994-2004	Aged 60+ (%) 1994	Aged 60+ (%) 2004	Total fertility rate 1994	Total fertility rate 2004	Longevity 2004	0-5 death rate
Austria	0.2	19.7	22.3	1.4	1.4	79	5
Belgium	0.3	21.2	22.2	1.6	1.7	78	5
Denmark	0.4	20.0	20.7	1.8	1.8	78	5
Finland	0.3	18.8	20.9	1.8	1.7	79	4
France	0.4	20.3	20.9	1.7	1.9	80	5
Germany	0.2	20.6	24.8	1.3	1.3	79	5
Greece	0.5	21.1	22.9	1.3	1.2	79	5
Ireland	1.3	15.2	15.0	1.9	1.9	78	6
Italy	0.1	22.1	25.3	1.2	1.3	81	5
Luxembourg	1.4	18.3	18.3	1.7	1.7	79	6
Netherlands	0.5	17.7	18.9	1.6	1.7	79	5
Portugal	0.4	20.1	22.1	1.5	1.5	78	5
Spain	0.7	20.5	21.3	1.2	1.3	80	5
Sweden	0.2	22.1	23.0	1.9	1.7	81	4
United Kingdom	0.3	20.9	21.0	1.8	1.7	79	6
Cyprus	1.4	14.7	16.5	2.2	1.6	79	5
Czech Republic	-0.1	18.0	19.6	1.5	1.2	76	5
Estonia	-1.0	18.9	21.5	1.5	1.4	72	8
Hungary	-0.2	19.3	20.5	1.6	1.3	73	8
Latvia	-0.9	19.0	22.3	1.5	1.3	71	11
Lithuania	-0.6	17.3	20.5	1.7	1.3	72	10
Malta	0.7	15.7	18.3	2.0	1.5	79	6
Poland	0.0	15.6	16.7	1.8	1.2	75	8
Slovakia	0.1	15.1	16.0	1.7	1.2	74	8
Slovenia	0.0	17.6	20.2	1.3	1.2	77	4
Bulgaria	**-0.7**	**21.0**	**22.3**	**1.4**	**1.2**	**72**	**15**
Romania	-0.5	17.1	19.2	1.4	1.3	72	20
Albania	-0.2	8.9	11.8	2.7	2.2	72	19
Bosnia&Herzegovina	1.0	11.8	18.9	1.5	1.3	73	15
Croatia	-0.3	19.2	21.9	1.5	1.3	75	7
FYR Macedonia	0.0	16.8	18.4	1.9	1.6	73	14
Serbia & Montenegro	0.4	13.0	15.3	1.9	1.5	72	15

Source: World health report 2006

Appendix 2