

National social insurance systems and their reforms

Health care systems in the NMS

1. Design of the health care systems and recent reforms

1.1. Health care systems organization

Among the New Member States (NMS) two groups of countries should be distinguished with respect to health care systems organization and management. In Cyprus and Malta health care systems are centralized, managed at the national level and have not overcome structural reforms in the last two decades, while in post-communist countries of the Central and Eastern Europe (CEE) reforms of the health care systems were introduced together with economic transformation of the 90s. The latter were designed as Bismarckian type of social security and are insurance-based.

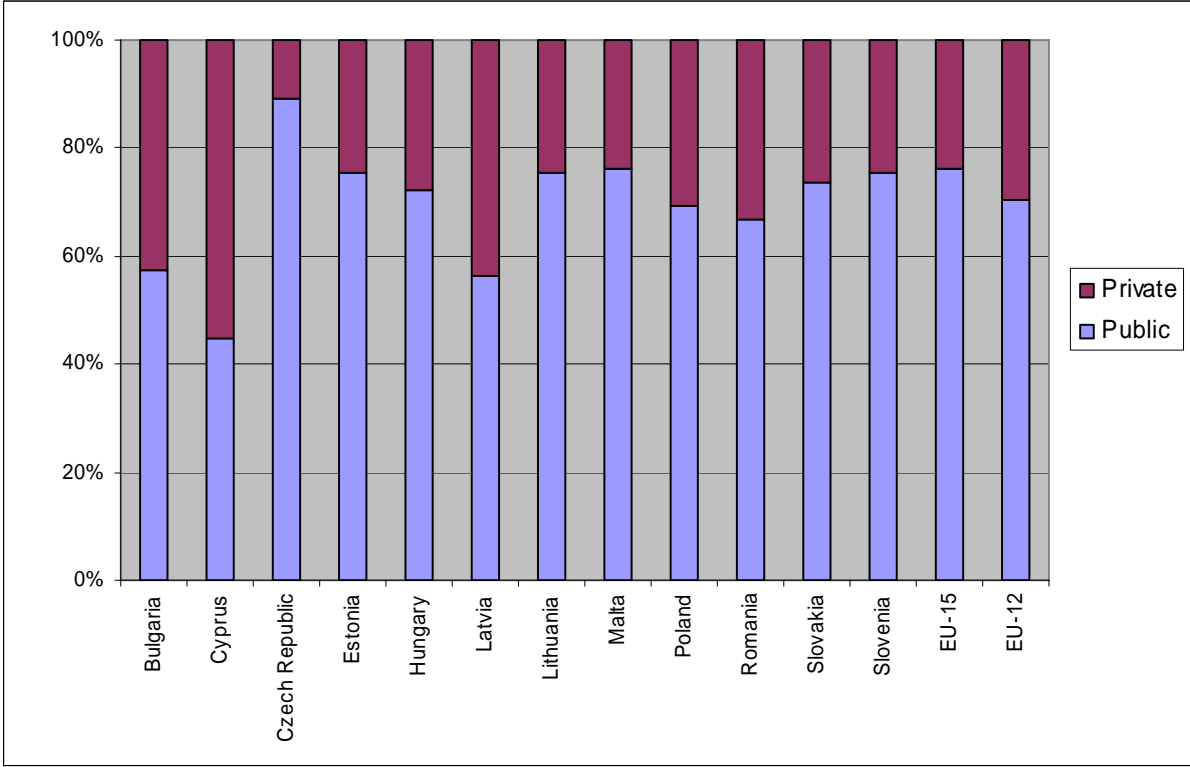
In Malta and Cyprus the health care systems are centralized, what implies financing from the general taxes and management of the system at the national level. Ministries of Health are responsible not only for setting priorities in the sector and formulating policies, but also for provision of health services to the whole population of both countries (WHO 1999, Allin, Mossialon 2004). Centralization of the health care systems is in line with management of other sectors of public administration, which in these small countries is mainly administered at the national level. Still, devolution of hospital management and privatization of primary care takes place in Malta, while in Cyprus introduction of compulsory health insurance scheme is a policy priority.

Post-communist countries of the Central and Eastern Europe undergone transformation from the centrally planned to decentralized, insurance based health care systems. During the communist era health care systems – although not unified between countries – were designed according to the Siemaszko model, what implies centrally planned, equitable and free of charge (financed from the state budget) health care (Golinowska, Sowa, Topór-Mądry 2006). In many countries primary care was merged with the tertiary care in forms of so called polyclinics. Access to hospitals was regulated by system of referrals, which in some countries was subject of decision of doctors of these polyclinics Also industrial health care (health care

services provided for selected branches - e.g. railway, the police, central administration) was in place. Decisions upon system funding were taken in the form of five year plans; however in result, the system was permanently underfunded as priority was given to develop industry and construction business. Work on the reform of the health care system began already in the 80s (in Hungary and Poland); however, actual reform processes started together with economic transformation of the 90s. The reforms were implemented in different time spans. Nevertheless, they shared the same principles and direction. They included separation of the health care sector finances from the general state budget, delegation of management of payment mechanisms and health care units management to the regional level, privatization of some segments of the system and introduction of new financing mechanisms for compensation of medical personell (Golinowska, Sowa, Topór-Mądry 2006). The basic organizational scheme of the public health care system is similar in the CEE countries: ministries of health are responsible for priority setting in the sector, policy making processes, medical staff education, scientific research and public health; insurance fund is separated from the general budget and is responsible for contracting medical services (contracts are made on annual basis or for two-years period and are subjected to monitoring process of the parliament and of the ministry); regional governments and municipalities are owners of medical units. New regulations aimed at increasing public revenues on health and therefore concentrated on the public sector. In none of the countries introduction of voluntary private schemes was a success. Legal framework for existence of private insurance has been formulated in some countries (e.g. Cyprus, Hungary, Slovakia); however, their coverage is very low (in Hungary it is less than 1%) (Golinowska, Sowa, Topór-Mądry 2006; Hlavacka, Wagner, Riesberg 2004). In Estonia private health insurance has a very limited scope and constitutes mainly of travel insurance (Thomson 2004). In Poland there have been no legal regulations with respect to introduction of private, voluntary health insurance. Nevertheless, so called “subscriptions” came into existence, where employers contract providing medical services for their employees directly with private health care units. Generally, it is believed that private insurance has not developed due to lack of adequate regulations, especially separation of basket of basic medical services financed from the public sources (Golinowska, Sowa, Topór-Mądry 2006) and lack of tax incentives in the countries where legal framework exists (Allin, Mossialos 2004). In all CEEC private expenditures constitute a large part of total health expenditures (Graph 1) and in most cases they take form of out-of-pocket payments for services that are provided outside of the basic medical service package or co-payment for medical aids and – especially – pharmaceuticals. Private expenditures on health constitute from around 8% of the

total health expenditure (Czech Republic) to over 60% of the total health expenditure (Cyprus).

Graph 1. Composition of health expenditure, 2004



Source : WHO HFA database 2007

Health care systems in the CEEC are also characterized by a high level of unofficial, under the table payments for services that are provided in the public sector. The scale of corruption and under the table payments is difficult to estimate as it is not covered by any official statistics.

1.2. Reforms of the health care systems

1.2.1. Introduction of health insurance

In the first stage of the health care system reforms, all CEEC introduced compulsory health insurance with an earmarked fund in place of budgetary funding from the general taxation. The aim of introduction of health insurance was to separate health care system funding from the general budget and to increase overall level of revenues of the public health care system. Introduction of insurance took place over the 90s: in the Baltic States health insurance was introduced in 1991, in Hungary in 1992, in the Czech Republic and Slovakia in 1993, while in

Bulgaria and Poland in 1999 (Annex, Table 1). Currently, introduction of health insurance and shift from the centrally organized health care system is a policy priority in Cyprus, where it is planned for 2008.

At the moment, in Czech Republic, Hungary, Slovakia, Poland and the Baltic States insurance is the most important source of health care system funding. In Slovakia it accounts to 85.9% of the total health revenues (Hlavacka, Wagner, Riesberg 2004), in Czech Republic 89.4% (Tomes, Koldinska, Nemecek 2003), in Hungary 71.6%, in Estonia 65.5% and in Poland 57% (Golinowska, Sowa, Topór-Mądry 2006) of the total health care funding. A significant share of the revenues (e.g. in Czech Republic it accounts for 20% of insurance revenues) is contributed by the state, which typically covers contributions not only for civil servants, but also for specific groups of inhabitants that cannot maintain themselves, e.g. unemployed, living out of social assistance and other social programmes. It is believed that in Hungary, in the early phase of the transition rising unemployment and decreasing individual revenues contributed to decreasing revenues of the health insurance (Gaal 2004). Indeed, in the period of 1992 – 2000, health insurance revenues in Hungary decreased from 8% of the GDP to 5.6% of the GDP. Unpaid health and pension insurance contributions amounted to 4.3% of the GDP in 1994, and began to decrease (Gaal 2004). Similar situation was faced in the period of 1999 - 2000 in Poland, where rising unemployment and unpaid health insurance contributions were among the reasons of financial imbalance of the newly introduced health insurance system (MZ 2004).

The design of the health insurance system in the CEEC evolved over the years. In most countries, newly introduced insurance followed the German pattern (Bismarckian type) of insurance, with autonomous and competing sickness funds. However, in the course of time the idea of competition was not implemented or was not successful. In Czech Republic health insurance funds, as established in 1993, were competing on a private market by offering, next to basic basket of medical services, different, additional services. This idea proved to be a mistake, as small insurance funds were not able to cover costs of additional, often expensive procedures and - in result – some of the funds bankrupted. Therefore, reimbursement of additional services was restricted already in 1994, and forbidden by legal regulations of 1997. Currently, there is 9 insurance funds operating, with the biggest one (GHIF) covering 68% of the population (Rokosova, Hava 2005). Nevertheless, health insurance funds are still facing financial problems as benefit package in Czech Republic is relatively broad and fee-for-service payment mechanism does not provide saving incentives on the side of medical services providers. Similarly, in Slovakia 13 health insurance funds were initially established,

with only 5 operating since 2004. There is also no competition between health insurance companies (Hlavacka, Wagner, Riesberg 2004).

In other countries – including Estonia and Poland – recentralization of health insurance took place. In Poland in 1999 17 sickness funds were established, but they operated only for 4 years. In 2003 sickness funds were transformed into the centrally coordinated National Insurance Fund, with 16 regional branches. In Estonia, the Central Sickness Funds and its 17 regional branches were replaced by the Estonian Health Insurance Fund in 2001. Recentralization does not imply return to the pre-transformation organization of the health care system, but it serves uniformization of the health care payment mechanism as well as increases capacity for rational health care system management. It also allows for better supervision of the provider – payer relations (Golinowska, Sowa, Topór-Mądry 2006).

Contribution fees differ significantly between countries. In Hungary health insurance premium was initially established as 22% of individual earnings (wages). Further, it was decreased to the level of 14%. In Bulgaria, insurance premium is at the level of 6% of individual earnings, in Czech Republic, Estonia and Slovakia 13.5%, 13% and 13.7% respectively. In Poland, health insurance premium was established as 7% of individual gross wages in 1999 and it has been stepwise increasing up to the level of 9% in 2007 (Golinowska, Sowa, Topór-Mądry 2006; MZ 2004). In each country health insurance premium is shared between employers and employees. Relation of payments between employers and employees differs between countries (e.g. 50:50 in Poland, 66:33 in Czech Republic, 78:22 in Hungary) (MZ 2004; Rokosova, Hava 2005; Gaal 2004). In Cyprus, individual health insurance premium is planned to be shared between employers (25%), employees (25%) and the state (50%) (Allin, Mossialos 2004).

Next to the state, local government and health insurance contributions, another source of health care system revenues are co-payments. In many countries (e.g. Czech Republic, Hungary, Poland) patients participate in costs of pharmaceuticals and other medical aids. In Slovakia also a co-payment to medical services covered by the compulsory health insurance was introduced in 2003. Co-payment does not constitute a significant part of health care system revenues¹, its objective is to constraint medical services utilization in cases when it is not justified from the medical point of view. Such co-payment is often considered as an entrance fee. Introduction of co-payment is will also take place in the Czech Republic starting

¹ Co-payments in Slovakia are not large: 50 SKK (about 1.25 EUR) for each day at the hospital and 20 SKK (about 0.50 EUR) for each medical consultation (Kvetan, Palenik 2006).

January 2008. It aims at changing patients behaviour and constrain overuse of medical services. Co-payment in Czech Republic will also cover hospital and primary care.

1.2.2. Decentralization of the system

Another important feature of the health care systems in the NMS is – present in each country except Cyprus and Malta – decentralization of the system. Though – as it is described above - partial centralization of funding is also observable (Golinowska, Sowa, Topór-Mądry 2006). Decentralization process is complex and observable in areas of financing, management and shared responsibility for the functioning of health care system. It implies that some of the management and responsibilities are shifted to the regional/local governments. In the first period of health care system reforms, payer function was transferred to the regional/local level (regional sickness funds), while later on – in some countries – this function was recentralized what allowed for better monitoring and uniformization of the contracting procedures. Local self-governments were - during negotiations - either a constitutive organ (owner) of health care units (e.g. in Czech Republic, Poland), responsible for investments in health care facilities or directly concluded contracts for provision of health services with sickness funds (e.g. in Hungary) (Golinowska, Sowa, Topór-Mądry 2006).

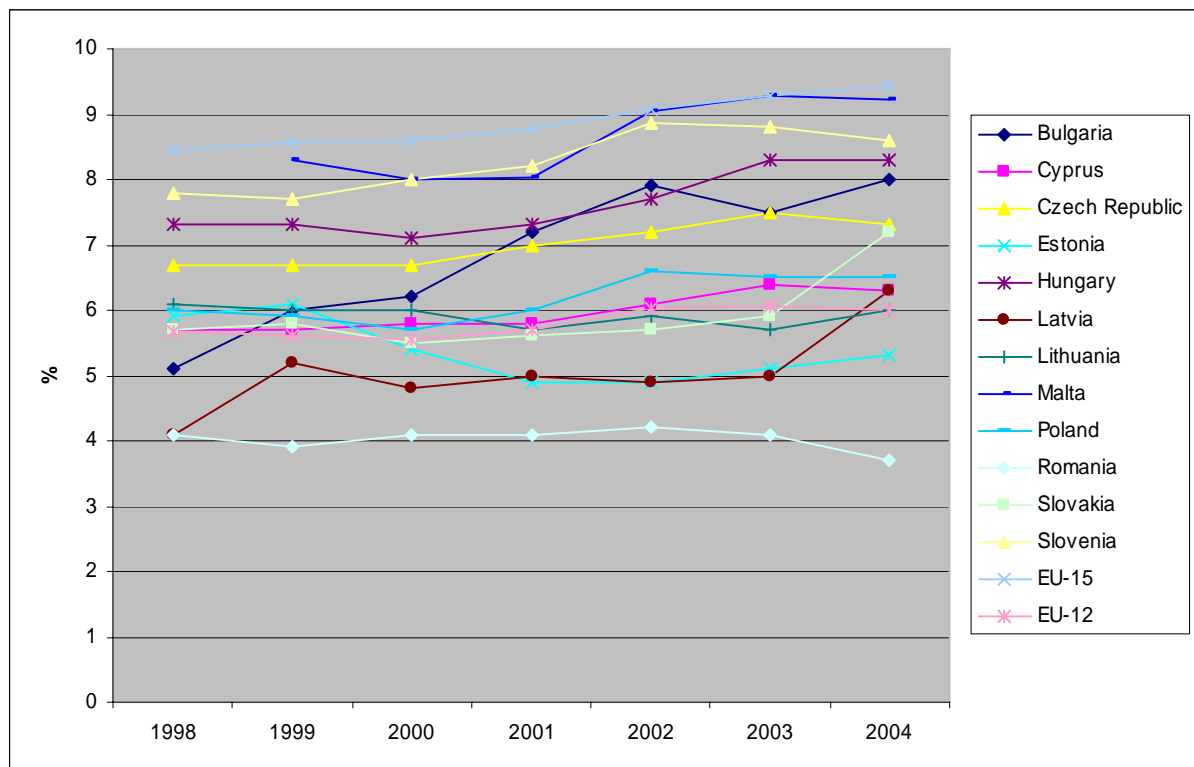
Next to decentralization of payments mechanism and management, decentralization of ownership took place. Regional and local self-governments became owners of health services units, namely hospitals, secondary and primary care units. Drawback of the solution was that often (e.g. in Poland) territorial self-governments were not prepared in terms of staff and financial assets to overtake ownership. In result, local governments were not able to invest in health care facilities (especially hospitals) what impacts quality of services. Some hospitals even incurred debts, what is further reflected in the total health care sector financial deficit (e.g. in Poland) (MZ 2004). Decentralization of health care units ownership also impacted and often unabled creation of network of health services providers, especially hospitals (Golinowska, Sowa, Topór-Mądry 2006). Therefore, rationalization of health care units network and equalization of access to health care became an extremelly difficult task.

Thirdly, decentralization implied privatization of health care units. In Czech Republic, Poland, Estonia and other countries of the region health care provision, especially primary health care, is privatized and doctors became entrepreneurs and owners of the primary health care units. Privatization was rapid for specialist care, especially dentistry, where treatment is expensive and often not covered by the basic benefit package.

2. Health care systems expenditure

On average, total health care system expenditures in the NMS are by one third lower than in the EU-15 (in 2004 it was 6% of GDP an 9.4% of GDP respectively). The level of expenditure differs significantly between countries: from less than 4% of the GDP in Romania, to over 9% of the GDP in Malta (Graph 2). In Malta, Czech Republic and Hungary, level of total health expenditures is close to the average EU-15 level (in 2002 and 2003 in Malta total health expenditures were in line with the EU-15 average). In the countries that introduced insurance schemes, the level of expenditures on health care began to increase by 1-2 percentage points in relation to the GDP already in the early 90s.. Despite the relative increase of expenditures, due to economic crisis of transition, the GDP was falling and the absolute expenditures on health were also decreasing (Golinowska, Sowa, Topór-Mądry 2006).

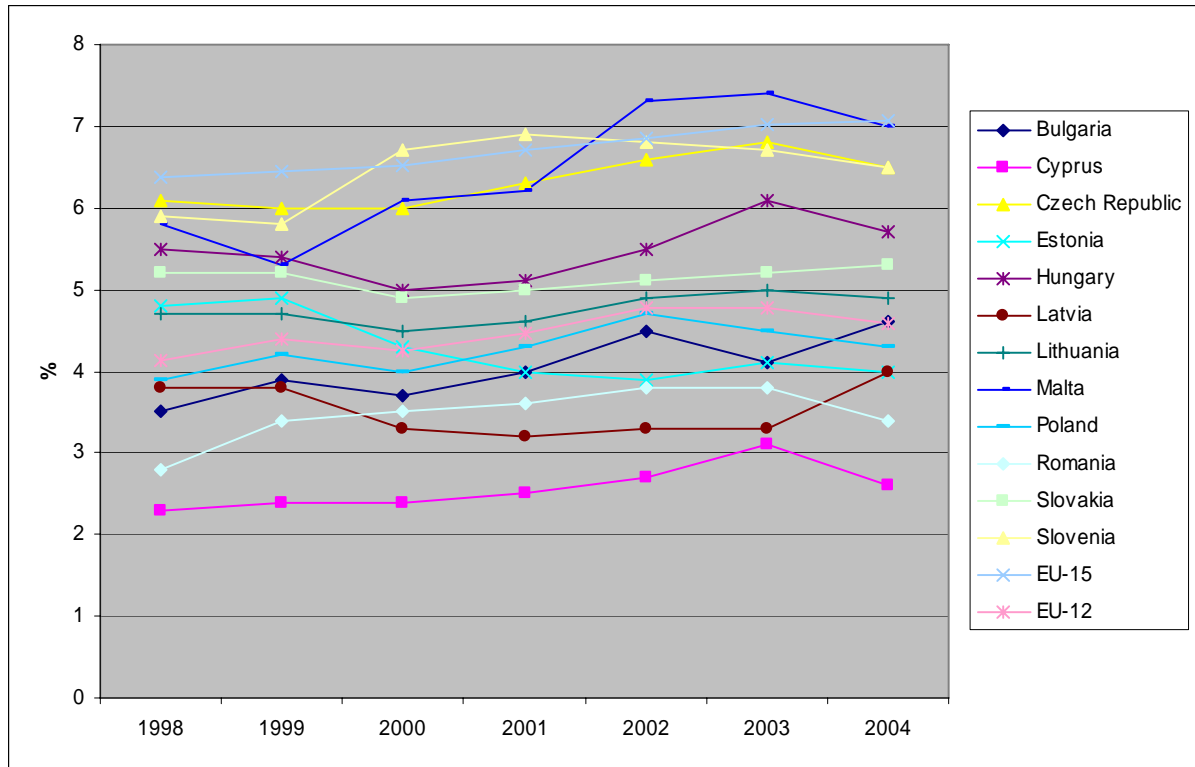
Graph 2. Total expenditure as a percentage of GDP



Source : WHO HFA database 2007

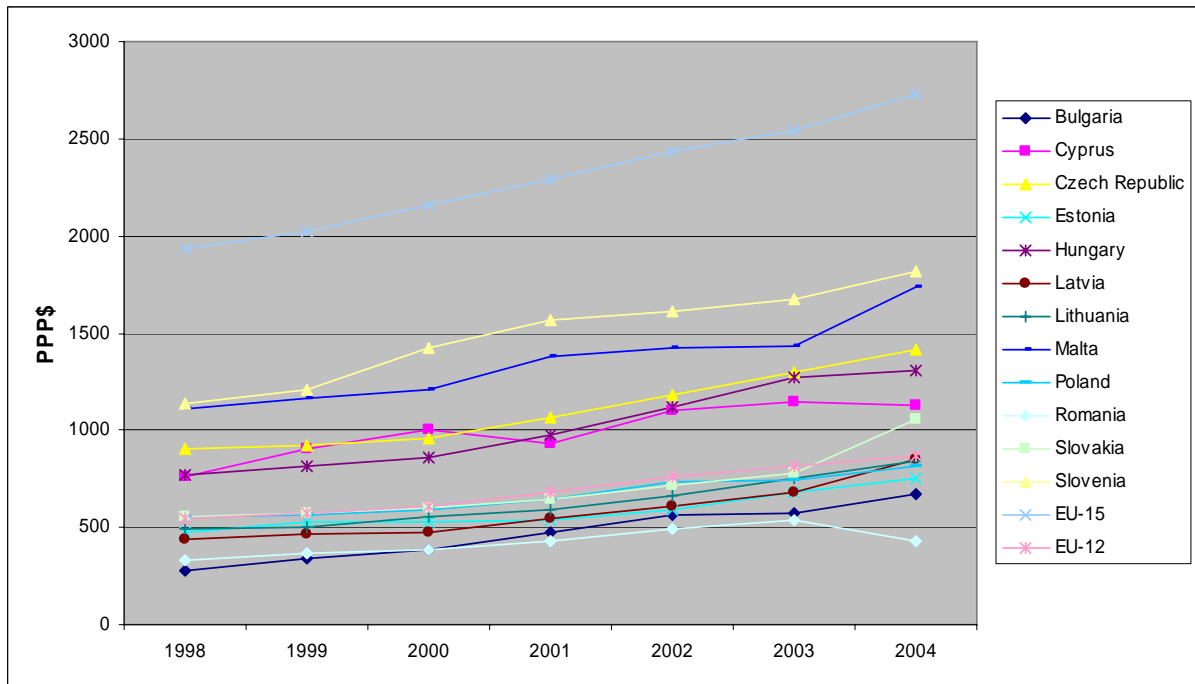
In 1998-2004, despite small fluctuations, total health expenditures were growing with the highest slope in Bulgaria, Malta, Hungary, Latvia and Czech Republic (Graph 2). In Slovakia, health expenditures sharply increased between 2003 and 2004, mainly, due to increase in private expenditures on health. In Cyprus and Poland increase in the total health expenditures level is relatively small, while in Estonia and Romania the total health expenditures even decreased, constituting in Romania less than half of the average EU-15 expenditures.

Graph 3. Public expenditure on health as percentage of GDP



Source : WHO HFA database 2007

Graph 4. Total health expenditure per capita (PPP\$)



Source : WHO HFA database 2007

Public expenditure on health constitutes in most of the countries around 70% of the total health expenditures (except Cyprus, Bulgaria and Latvia, where they constitute less than 60% and Czech Republic where public health expenditures constitute more than 90% of the total health expenditures). The level of public health expenditures is strongly differentiated – in Cyprus the level of public expenditures is less than 2% of the GDP, while in Malta it is at the average EU-15 level (around 7% of the GDP) (Graph 3).

Although relative (in relation to the GDP) total health expenditures in some countries seem to be similar as in the EU-15, when average per capita expenditures on health are compared, the gap between the EU-15 and the NMS is wide. Even in countries with the highest total expenditures on health in relation to the GDP, per capita expenditures are by around 40% lower than on average in the EU-15 (Slovenia, Malta) (Graph 4, Table 1). In the Czech Republic, Hungary and Cyprus per capita health expenditures are lower by around half, while in other countries total per capita expenditures constitute only around one third of the average per capita expenditures in the EU-15. Per capita expenditures on health grew in all of the NMS. The dynamics of increase of per capita expenditures on health in the period of 1998 – 2004 was the highest in Bulgaria, Slovakia and Latvia and the lowest in Romania (Table 2). In Romania the level of per capita expenditures as compared to the average EU-15 level is the lowest (in 2004 it constituted only 15% of the average total per capita expenditures in the EU-15). In Bulgaria the overall health expenditures are also low (24% of the average total per capita expenditures in the EU-15), however they grew by 10 percentage points between 1998 and 2004.

Despite the fact, that on average the dynamics of increase of per capita expenditures in the NMS was higher than in the EU-15 (Table 2), in some countries (e.g. Poland, Romania), expenditures grew almost in line with expenditure increase in the EU-15. That implies that improvement of services available measured by the amount spent on treatment per one citizen was relatively small.

Table 1. Total per capita expenditures in the NMS as a percentage of the total health expenditures in the EU-15 (average)

	Bulgaria	Cyprus	Czech Republic	Estonia	Hungary	Latvia	Lithuania	Malta	Poland	Romania	Slovakia	Slovenia	EU-15	EU-12
1998	278	759	904	476	774	435	490	1112	556	331	559	1137	1933,72	549,77
%	14,38	39,25	46,75	24,62	40,03	22,50	25,34	57,51	28,75	17,12	28,91	58,80	100,00	28,43
1999	342	905	920	524	819	464	501	1163	564	368	577	1211	2023,68	576,76
%	16,90	44,72	45,46	25,89	40,47	22,93	24,76	57,47	27,87	18,18	28,51	59,84	100,00	28,50
2000	381	1000	962	531	857	477	557	1209	587	386	597	1421	2160,02	608
%	17,64	46,30	44,54	24,58	39,68	22,08	25,79	55,97	27,18	17,87	27,64	65,79	100,00	28,15
2001	476	934	1065	540	975	549	591	1380	646	429	641	1571	2292,75	676,17
%	20,76	40,74	46,45	23,55	42,53	23,95	25,78	60,19	28,18	18,71	27,96	68,52	100,00	29,49
2002	561	1101	1186	589	1115	611	660	1421	732	491	716	1616	2437,07	764,82
%	23,02	45,18	48,66	24,17	45,75	25,07	27,08	58,31	30,04	20,15	29,38	66,31	100,00	31,38
2003	573	1143	1302	682	1269	678	754	1436	745	540	777	1677	2543,78	818,03
%	22,53	44,93	51,18	26,81	49,89	26,65	29,64	56,45	29,29	21,23	30,55	65,93	100,00	32,16
2004	671	1128	1412	752	1308	852	843	1733	814	433	1061	1815	2729,1	869,61
%	24,59	41,33	51,74	27,55	47,93	31,22	30,89	63,50	29,83	15,87	38,88	66,51	100,00	31,86

Source: own calculations based on WHO HFA database

Table 2. Dynamics of the total per capita health expenditure growth 1998-2004

	Bulgaria	Cyprus	Czech Republic	Estonia	Hungary	Latvia	Lithuania	Malta	Poland	Romania	Slovakia	Slovenia	EU-15	EU-12
1998	278	759	904	476	774	435	490	1112	556	331	559	1137	1933,72	549,77
1999	342	905	920	524	819	464	501	1163	564	368	577	1211	2023,68	576,76
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2004	671	1128	1412	752	1308	852	843	1733	814	433	1061	1815	2729,1	869,61
<i>Change 1998-2004</i>	241,37	148,62	156,19	157,98	168,99	195,86	172,04	155,85	146,40	130,82	189,80	159,63	141,13	158,18

Source: own calculations based on WHO HFA database

3. Health care systems sustainability

Health care systems sustainability in the NMS may be affected by pressures related to higher than in the EU-15 mortality levels and by pressures that arise due to rapid ageing of the population in the coming decades. A significant factor is that the health care systems – as it was described above – are still in the process of transition and some of them (Hungary, Czech Republic, Poland) are facing financial difficulties due to immature insurance system and rich basic benefit packages.

3.1. Health situation of the elderly

After the crisis and increasing mortality faced by the CEEC in the 80s., the health status of the elderly is improving in the last two decades. It is related to improvement of the health status of the whole population in these countries. Reasons behind health improvement are complex and often not related to changes in the health care system organization and improvement of medical services (NiDi 2006). Health status improvement is explained by changes of consumption pattern, including decrease in alcohol consumption level, decreasing number of smokers (following short increase at the beginning of the 90s) and changes in diet: increasing consumption of plant fats in place of animal fats, increasing consumption of fruits and vegetables (Zatoński 2006). Doctors also state that health improvement is related to increasing access to medicines and new medical technologies as well as shortening time of providing medical services in case of the risk of cardiac infarction (Drygas 2005). Improvement of the health status is reflected in increasing longevity of the elderly and decreasing mortality. Despite the health improvement, longevity of the elderly (65+) in the NMS is by 3 years shorter than in the EU-15 (Annex, Table 2). Among the NMS, the highest longevity is in Cyprus, Slovenia, Czech Republic and Malta. The shortest life expectancy of the elderly is in Bulgaria and Romania, countries that have the lowest per capita expenditures on health.

Overall mortality level of the elderly is higher in the NMS than in the EU-15. The main causes of death in the CEEC are circulatory system diseases and malignant neoplasms. Again, mortality due to circulatory system diseases is significantly higher in the NMS than in the EU-15. However, in the last years the level of mortality due to circulatory system diseases has dropped in Slovenia, Poland, Malta, Cyprus and the Czech Republic. Still, this process has

not been observed in Bulgaria and Romania. In these countries mortality levels caused by cancers is relatively low. Nevertheless, on average, mortality due to cancers is also higher in the NMS than in the EU-15.

Based on the up-to-date trends it can be expected that overall mortality will decrease in the NMS, with further decrease in mortality due to circulatory system diseases. However, increasing trend in mortality due to cancers may be continued in the NMS (NiDi 2006). Simultaneously, increasing number of the elderly will lead to increase in occurrence of diseases related to the old age, especially growing incidence of chronic diseases, poly-morbidity and disability (Golinowska, Sowa, Topór-Mądry 2006).

3.2. Demographic pressure

It is foreseen, that the trend of increasing longevity will continue in the coming decades. According to the EUROSTAT projections (Table 3), on average in the EU-10 longevity of males will increase by 8.6 years and longevity of females by 5.9 years by the 2050. During this process, the gap in longevity between the EU-15 and the EU-10 will decrease by 2.8 years for males and 0.7 years for females. Rapid improvement of longevity of males is related to catch-up period after the health crisis² of males in the labour market active age that was observed in CEEC in the 80s.

Table 3. Changes in longevity by sex, EU-10, 2004-2050

	Males			Females		
	2004	2050	<i>Change</i>	2004	2050	<i>Change</i>
Cyprus	76.3	81.9	5.6	81.6	85.1	4.3
Czech Republic	72.4	79.7	7.4	78.8	84.1	5.3
Estonia	65.5	74.9	9.4	76.9	83.1	6.3
Hungary	68.5	78.1	9.6	76.8	83.4	6.6
Latvia	66.5	75.5	9.0	77.6	83.7	6.1
Lithuania	64.9	74.4	9.3	76.2	82.5	6.3
Malta	76.2	81.8	5.6	80.7	85.0	4.3
Poland	70.5	79.1	8.7	78.5	84.4	5.9
Slovakia	69.7	77.7	8.0	77.8	83.4	5.6
Slovenia	72.6	79.8	7.3	80.2	85.1	5.0
EU-10 average	70.1	78.8	8.6	78.2	84.1	5.9
Eu-15 average	76.4	82.3	5.9	82.2	87.4	5.2

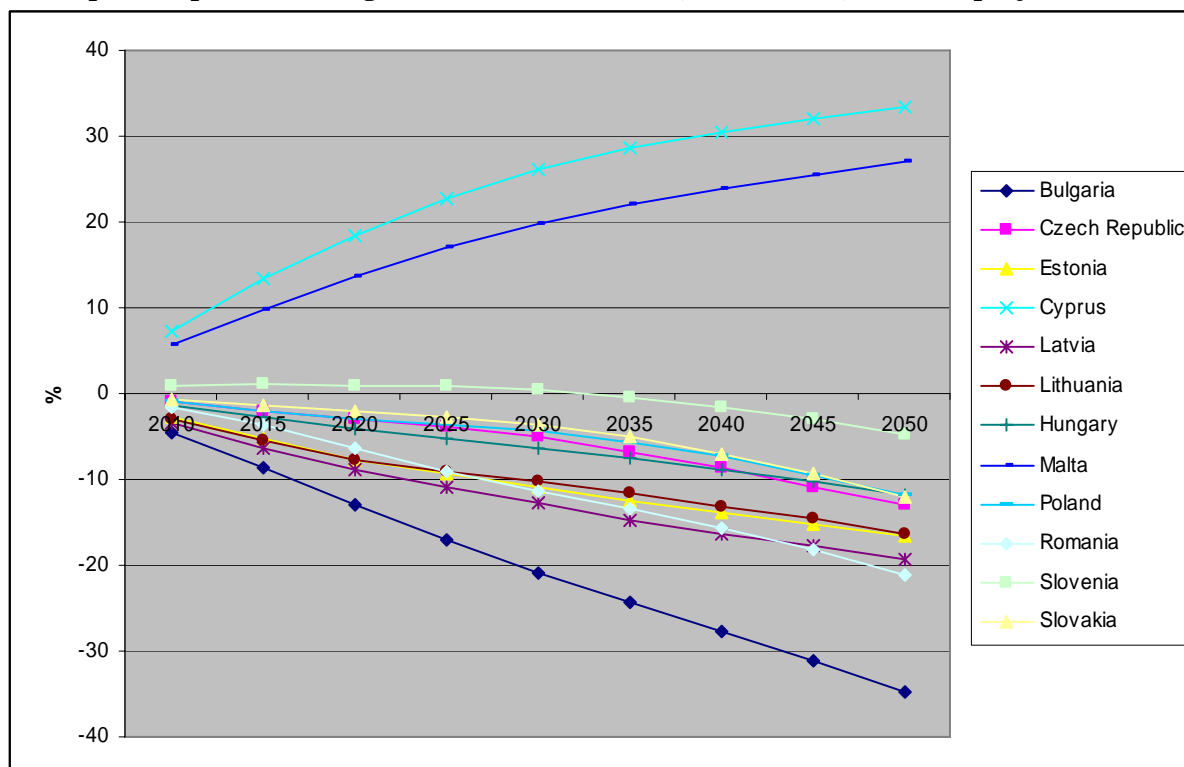
Source: EUROSTAT, EPCEC (2006)

Ageing of the population is – next to changes in longevity - a result of low fertility level. In 2004, in all the NMS the total fertility rate (TFR) was much below the reproduction level (2.1) and lower than in the EU-15. It was extremely low in Poland (1.21), Slovakia (1.19), Slovenia (1.18) and the Czech Republic (1.15). According to the EUROSTAT projections, it is foreseen to increase in the next 50 years, however, still it will be below reproduction level (on average it will increase by 0.36) (EPCEC 2006).

In result, population of the NMS is foreseen to decrease in all of the countries except Malta and Cyprus (Graph 5). The highest decrease of the population is expected in Bulgaria. On average, population of the NMS will decrease by 8.4% by 2050.

² Health crisis was characterized by increased mortality due to circulatory system diseases and external causes of death and was observed in the communist countries of Eastern Europe in the 80s. Among causes of the health crisis high consumption of alcohol beverages and high level of stress are listed (Golinowska, Sowa, Topór-Mądry 2006).

Graph 5. Population change (%) in relation to 2004, 2004 – 2050, Eurostat projections



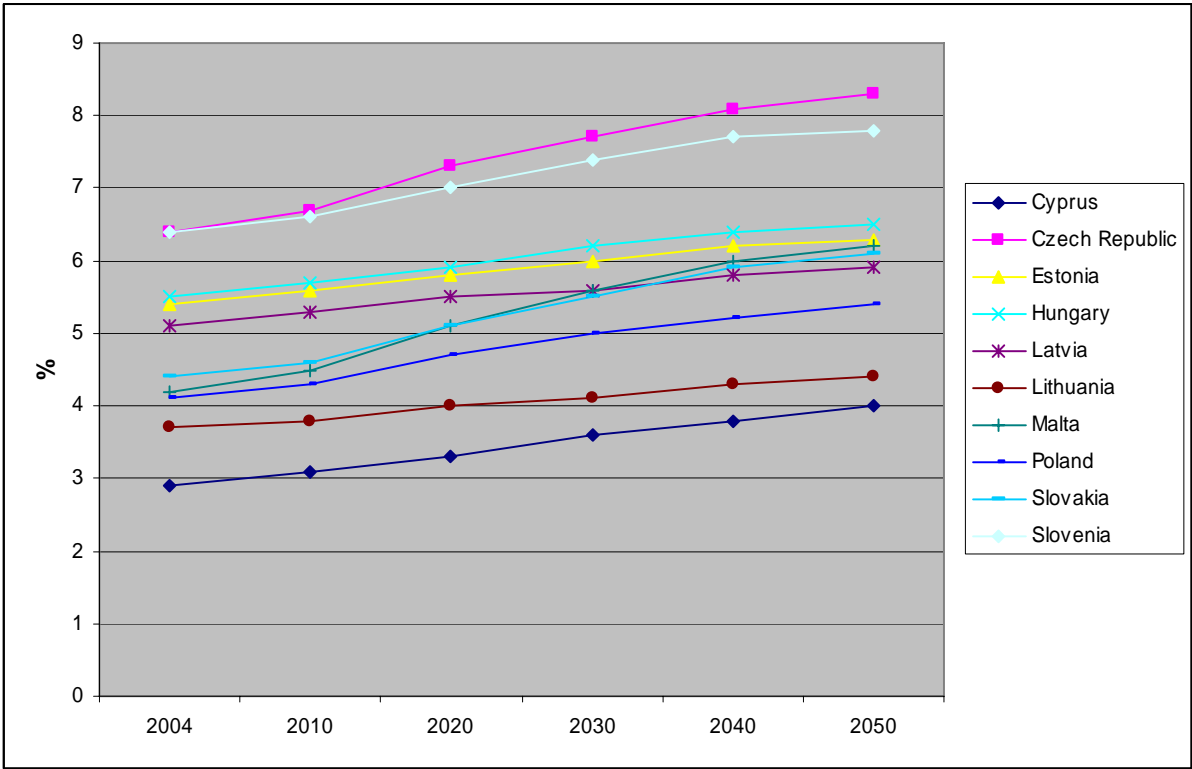
Source: Eurostat (2007),

http://epp.eurostat.ec.europa.eu/portal/page?_pageid=0,1136184,0_45572595&_dad=portal&_schema=PORTAL

Ageing of the population raises concern about the future performance of social protection system, including future demand and costs of health care. Ageing may impact health as increase in the share of elderly in the population, a cohort with the worst health status, will lead to increase demand for medical services (assuming that the current pattern of medical services utilization will preserve). The negative impact of ageing on increase of health expenditures can be to some extent hindered by the fact, that the health status will improve (what implies that the increase in longevity will be accompanied by decrease in medical services utilization in older ages). On the other hand, if health status will not improve, or even worsen, the demand for medical services - as compared to current medical services utilization pattern - will increase. Another issue that is under discussion is that increase of health expenditures can be restrained by the fact that the highest cost are borne in the last years (or months) of life. These are some of the scenarios that are discussed when future health expenditures are projected. Projections of future health expenditures, using different scenarios have been performed by the Ageing Working Group working under the supervision of the DG ECFIN, European Commission. Scenarios of foreseen growth of health expenditures in the next 50 years covered the 10 NMS (without Bulgaria and Romania). Results indicate that,

despite of the scenario that is examined – future public expenditures on health will increase in every NMS, though the scale of expenditure growth is different depending on scenario. Hereby, only results of basic scenario are discussed. The reference is pure ageing scenario (Graph 6), where on average in all the NMS health expenditures are foreseen to increase by 1.2% of the GDP by 2050. The highest increase of public expenditures on health is projected in Malta (2.0% of the GDP), Czech Republic (1.9% of the GDP) and Slovakia (1.8% of the GDP), while the smallest in Lithuania and Latvia (0.7% of the GDP in each country).

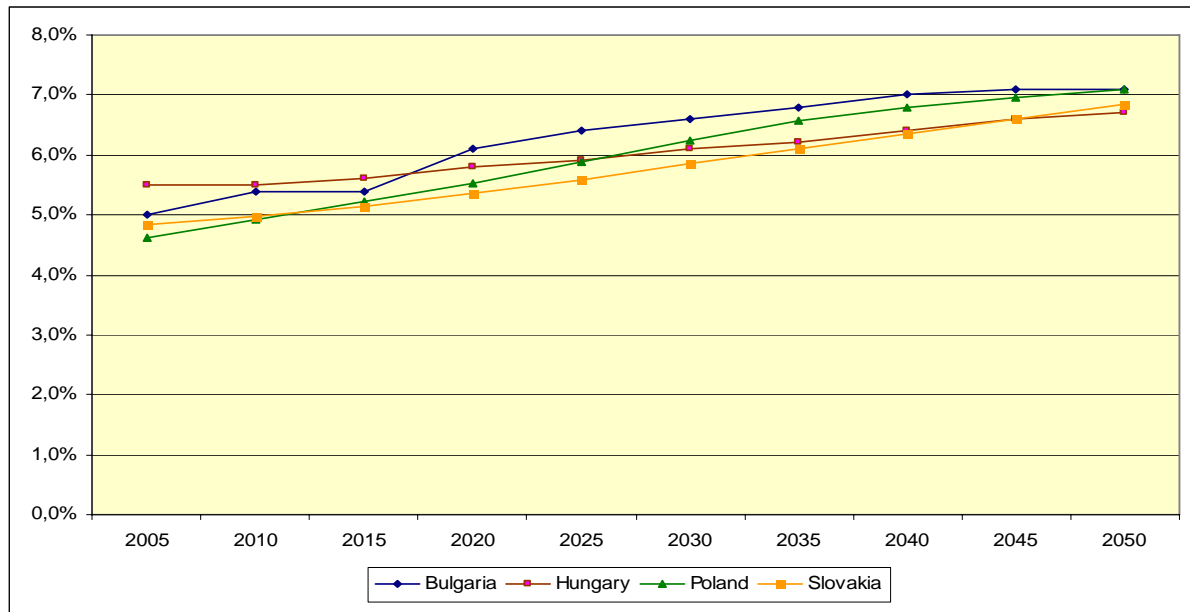
Graph 6. Public expenditure on health care as a share of the GDP – pure ageing scenario (AWG)



Source: EPCEC (2006)

Other projections of future development of health care sector were performed within the AHEAD project and covered not only expenditure, but also public revenues of the health care system. These projections covered 4 NMS: Bulgaria, Hungary, Poland and Slovakia. Health expenditure model took into account changes in the public expenditures on health due to ageing and assuming current medical services utilization pattern. According to the projections, foreseen increase in the level of health expenditures in relation to the GDP in the 4 countries is even higher than in the AWG projections (EPCEC 2006). On average, the expenditures are foreseen to increase by around 2% of the GDP by 2050 (Golinowska, Kocot, Sowa, 2007) (Graph 7).

Graph 7. Public expenditures on health as a share of the GDP – AHEAD project



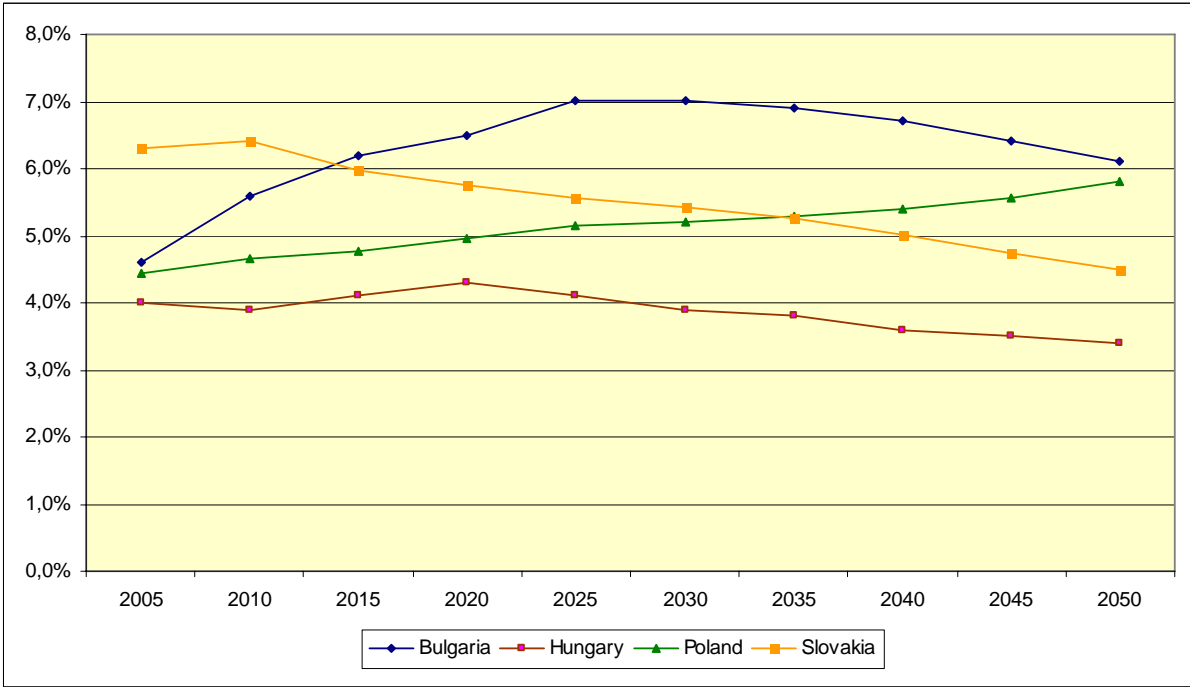
Source: AHEAD WPIX

Increase in the public revenues on health are driven by changes on the labour market, as in the countries that were covered by the analysis health insurance systems are in place and insurance revenues constitute a large share of the total health care system revenues (except Bulgaria, where insurance revenues constitute around 36% of the total health care system revenues) (Golinowska, Kocot, Sowa 2007). Revenues of the health care system are foreseen to develop differently in each country: in Bulgaria sharp increase in the health care system revenues is foreseen to continue by 2025, in Slovakia revenues are decreasing after 2010, and in Hungary after 2020 (Graph 8). In Poland health care system revenues are foreseen to slowly increase, mainly in result of increasing labour market participation rate and increasing employment (Golinowska, Kocot, Sowa 2007).

Results of projection indicate that, despite increasing revenues, public health care systems are not sustainable over time. The worst situation is in Hungary and Poland, where even at the beginning of projections health care systems face financial deficit. The reasons of financial deficit include unsustainable and indebted health insurance system (Hungary) and indebted provider side of the health care system (especially hospitals in Poland). With unfavourable demographic trend the financial deficit increases in time, amounting to 3.4% of the GDP in Hungary and 1.3% of the GDP in Poland. In Bulgaria, despite the occurrence of the deficit in 2005, the system is stable in the first 35 years of the projection period. Bulgarian health care system faces financial deficit after 2035, but till 2050 it does not exceed 1% of the GDP, well

above the level of a deficit in other countries. In Slovakia health care systems is foreseen to be stable in financial terms in the next 30 year, however later on the financial deficit increases sharply and is foreseen to amount even to 3.4% of the GDP by 2050 (Table 4).

Graph 8. Total public revenues of the health care system as a share of the GDP



Source: (Golinowska, Kocot, Sowa 2006)

Table 4. Deficit/surplus as a share of the GDP

	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Bulgaria	-0.5	0.1	0.4	0.4	0.6	0.4	0.0	-0.3	-0.7	-1.0
Hungary	-1.5	-1.6	-1.5	-1.5	-1.8	-2.2	-2.5	-2.8	-3.1	-3.4
Poland	-0.2	-0.3	-0.4	-0.6	-0.7	-1.0	-1.3	-1.4	-1.4	-1.3
Slovakia	1.5	1.4	0.8	0.4	0.0	-0.4	-0.9	-1.4	-1.9	-2.3

Source: (Golinowska, Kocot, Sowa 2006)

Conclusions

Health care systems in the NMS have changed substantially in the last two decades and are still in the process of transformation. In most of the NMS the health insurance was introduced, following the German pattern of health insurance. The transition has been a difficult process and it involved numerous stakeholders and new insitutions (new insurance insitutions, local governments as owners of the health care units, contracting procedures).

Also the structure of health care system providers have changed as the role of primary care has changed with the introduction of GP with a gate keeping function. Next to it, health care units were privatized. Another feature of transition of the health care system was an attempt to decentralize financing procedures, management and ownership. Decentralization was not always successful. First of all, an idea of privatization of the payer institution and competition between payers never came into practice or – like in Czech Republic and Slovakia – occurred to be a failure and led to the instability of the insurance system. In some countries autonomy of regions in health care management was found to be an obstacle in effective management, and in result recentralization of payer institution took place (Estonia, Poland). Health care systems are still under development due to lack of financial stability. In Hungary and Poland health care systems face financial indebtedness caused by large (or not clearly defined) basic basket of medical services commonly available, problems with ownership and financial resources for maintenance of health care units. These problems will be extremely difficult to overcome in the future, as health care systems will face unfavourable situation due to ageing of the population and increased demand for health care for the growing elderly cohort (assuming that the health status will not improve substantially). According to different projections, public expenditures on health care in the NMS will increase on average by 1.2 – 2.0% of the GDP by 2050. Revenues will also increase, if accompanied by increase in labour market participation and growing employment rate. Positive changes, in line with Lisbon Strategy, on the labour market will have a positive impact on health care system revenues as in most of the NMS insurance system, based upon individual earnings is in place. Despite increase on the revenues side of the public health care system, still health care systems may face financial deficit in the long run. To assure financial stability of the health care system, actions within and outside of the health care system would be needed. These include increase in the health insurance contribution rate, increasing efficiency of the management of the health care system, further privatization of the health care system (providing some services on the private market) and actions towards increasing labour market activity.

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ANNEX

Table 1. Health care system performance – EU 10 and the candidate countries

	Country System administration	Sources of health care system funding	Size of contribution (% of earnings)	Last reform	Funding level - total health expenditure as % of GDP		Public funding - public health expenditure as % of total health expenditure	
					2003	2004	2003	2004
Bulgaria	Ministry of Health, Regional Health Centres	1. National Health Insurance Fund, 28 Regional Health Insurance Funds 2. Taxes 3. Voluntary health insurance contributions 4. Subscription by employees for specific health services 5. Out of pocket payments 6. Co-payment (1% of min salary for outpatient, 2% for hospital)	6	1999 - 2001	7.5*	8.0*	4.1	4.6
Cyprus	Ministry of Health	1. National Health Insurance Scheme to be implemented in 2008 2. General taxation 3. Employer based medical insurance	Planned (2008): 1.5 – 2	Planned 2008	6.4	6.3	3.1	2.6
Czech Republic	Ministry of Health	1. Public Health Insurance, 9 health insurance agencies 2. State and regional budget subsidies 3. Out-of pocket payments 4. Private health insurance 5. Co-payment planned for 2008	13.5	1993	7.5	7.3	6.8	6.5
Estonia	Ministry of Social Affairs	1. Health Insurance Fund 2. Health Promotion Fund	13	2000 – 2002	5.1	5.3	4.1	4.0

		3. Municipalities budget 4. Out-of pocket payments 5. Private health insurance						
Hungary	Ministry of Health, Health Insurance Fund, Ministry of Finance	1. Health Insurance Fund 2. Central budget 3. Out-of pocket payments	23.5	1998 - 2002	8.3	8.3	6.1	5.7
Latvia	Ministry of Welfare	1. State compulsory health insurance agency 2. State budget subsidies and loads 3. Out-of pocket payments	n/a	1997 - 1999	5.0	6.3	3.3	4.0
Lithuania	Ministry of Health	1. Health Insurance Fund 2. State budget 3. Municipal budgets	n/a	1996 - 1996	5.7	6.0	5.0	4.9
Malta	Ministry of Health	1. National Insurance Fund (general taxation resources) 2. Private Health Insurance 3. Out-of pocket payments	n/a	2001	9.3	9.2	7.4	7.0
Poland	Ministry of Health, National Health Insurance Fund	1. National Health Insurance Fund, 16 Regional Departments of Health Insurance Funds 2. Central budget 3. Local government funds 4. Out-of pocket payments	9.0	1999, 2003 partial withdrawn of the reform (sickness funds centralization)	6.5	6.5	4.5	4.3
Romania	Ministry of Health and Family	1. National Health Insurance House 2. State budget 3. Local budgets 4. External credits 5. Out-of pocket payments	14	1998	4.1	3.7	3.8	3.4
Slovakia	Ministry of Health	1. Health Insurance Company 2. State budget 3. Co-payment	14	2002-2004	5.9	7.2	5.2	5.3
Slovenia	Ministry of Health, National Health Insurance Institute, Institute of	1. National Health Insurance 2. Government contributions to NHI	13.45	1992	8.8	8.6	6.7	6.5

	Public Health	3. Voluntary Health Insurance 4. Out-of pocket payments												
EU – 12 (members since 2007)										6.1	6.0	4.8	4.6	
EU – 15 (members before May 2004)										9.3	9.4	7.0	7.1	

* WHO estimations

Source: NiDi (2006); WHO HIT; WHO HFA (2007); Golinowska, Sowa, Topór-Mądry (2006)

Table 2. Basic demographic and epidemiological indicators, 2004

	Bulgaria	Cyprus	Czech Republic	Estonia	Hungary	Latvia	Lithuania	Malta	Poland	Romania	Slovakia	Slovenia	EU-15	EU-12
Share of population 65+	17.12	11.93	13.99	16.34	15.56	16.36	15.06	13.17	13.05	14.53	11.62	15.17	17.04	14.14
Life expectancy at age 65+, in years	14.87	18.1	16.21	15.94	15.67	15.45	16.22	17.95	16.62	14.94	15.62	17.63	18.99	15.94
Life expectancy at age 65+, in years male	13.26	16.61	14.29	13.03	13.41	12.67	13.52	16.46	14.23	13.38	13.44	15.09	17.0	13.83
Life expectancy at age 65+, in years female	16.25	19.51	17.7	17.86	17.32	17.24	18.04	19.17	18.44	16.23	17.26	19.48	20.63	17.55
SDR all causes, 65+, per 100000 population	6502.34	4502.15	5542.65	5640.56	5775.51	5948.33	5440.34	4469.6	5200.35	6423.26	5832.02	4644.4	3990.45	5727.2
SDR all causes, 65+ male, per 100000 population	7785.35	5435.48	6937.61	7823.65	7399.92	8114.76	7299.92	5294.56	6803.82	7600.72	7482.1	6239.4	5001.07	7228.14
SDR all causes, 65+ female, per 100000 population	5589.53	3782.9	4689.44	4572.9	4825.59	4902.63	4462.36	3889.3	4249.16	5598.44	4862.26	3756.31	3302.27	4799.18
SDR diseases of circulatory system, 65+, per 100000 population	4845.52	1819.97	3305.35	3601.28	3464.86	3877	3698.07	2050.48	2866.6	4795.31	3774.15	2100.94	1679.12	3659.47
SDR diseases of circulatory system, 65+ male, per 100000	5586.58	2137.56	3897.67	4558.7	4146.51	4986.81	4444.67	2257.92	3466.82	5326.27	4490.58	2570.55	1984.92	4316.97

population														
SDR diseases of circulatory system, 65+ female, per 100000 population	4314.05	1565.67	2935.89	3103.3	3059	3333.19	3284.3	1885.87	2498.6	4412.24	3344.88	1833.26	1457.49	3241.82
SDR malignant neoplasms, 65+, per 100000 population	706.19	797.5	1308.5	1056.46	1247.84	969.06	962.62	895.4	1119.85	795.77	1076.04	1121.83	1007.59	1031.11
SDR malignant neoplasms, 65+ male, per 100000 population	987.29	1151.06	1860.46	1803.6	1822.75	1643.03	1584.09	1203.19	1707.03	1106.03	1613.31	1693.58	1427.61	1513.65
SDR malignant neoplasms, 65+ female, per 100000 population	504.57	527.48	974.42	712.49	919.26	653.94	646.95	684.43	773.97	580.26	760.6	807.21	728.94	736.81
SDR, infectious and parasitic disease, 65+ per 100000	18.22	37.25	13.27	17.35	14.65	21.67	28.59	11.15	21.61	20.97	22.68	21.31	45.81	19.78
SDR, infectious and parasitic disease, 65+ per 100000, male	27.32	34.5	18.4	37.02	22.23	35.82	54.95	14.87	33.72	32.94	33.62	34.27	54.37	30.91
SDR, infectious and parasitic disease, 65+ per 100000, female	11.77	39.41	10.11	8.17	10.47	14.15	15.51	8.38	14.78	12.4	16.6	15.13	40.09	13.06

Source: WHO, Health for All Database, 2007