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**Investing in Health Institutions in Transition
Countries**

Warsaw, August 2007



Materials published here have a working paper character. They can be subject to further publication. The views and opinions expressed here reflect the author(s) point of view and not necessarily those of CASE.

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Abstract

This study presents an overview of the health care systems in postcommunist countries with its resources and operations, in addition to proposing steps that should be taken in order to overcome the health crisis associated with transition and increase the effectiveness and efficiency of health care systems. At the beginning of the 90's, the crisis of transition had a significant impact on the low level of funding in health care, declining in proportion to the fall of GDP or even faster. The continued crisis and slow recovery also affect the low political preference for funding the health care sector during the GDP allocation process. There is excessive competition from other important socio-economic goals and health care frequently loses the battle.

Transition is accompanied by dynamic demographic changes: falling number of births and overall population ageing resulting in a visible decline in population size. The poorer transition group countries are facing an extremely difficult epidemiological phenomenon, with a growing mortality trend related to the major group of civilization diseases – circulatory diseases, excessive mortality due to external causes and the epidemics of new infectious diseases – HIV/AIDS.

Health care system reforms were implemented together with the general wave of systemic and economic reforms. Former communist countries quickly rejected the centrally planned economy approach; moreover, they failed to fully appreciate the need for such elements as coordination and integration of activities, which are indispensable in the health care sector. On the other hand, institutions of central, and occasionally also regional, administration were not modernized and severely under-funded (relics of the previous era), thus hindering their ability to meet the new challenges. An overriding problem related to the functioning of the sector that emerged in the majority of transition countries consists in continued privatization of health care financing, with simultaneous conservation of extended rights to free services. In view of low funding in the sector and dynamically growing costs (mostly drugs), conservation of rights is a cause of serious problems in the sector: it contributes to increasing financial imbalances in the sector, has adverse impact on the morale of medical professionals, and impedes better governance in the sector. This implies that reforms cannot be implemented without investing in adequate institutions, personnel qualifications, information systems, and analytical instruments that combine medical and

financial data, and additionally require greater programming and forecasting capacity. Restrictions caused by managing inefficiencies in the system of free utilization of health services in poor countries may lead to significant limitations in access to health care.

Introduction

In a number of studies, post-communist countries have been and, on occasion, still are treated as a collection of countries characterised by social and institutional uniformity, not only before 1990 and at the moment that the process of transformation was initiated, but also later, when reforms were already well underway. Nevertheless, this sizeable region demonstrates not only a number of similarities, but also diverse contexts and solutions. The present study constitutes an attempt to identify the similarities and dissimilarities prevalent in the health care sector in transition (spanning approximately 1990 – 2005) in these countries. Such an approach offers one of the preconditions for the formulation of health policy in the region, both in its national and international aspects.

It appears that the health care sector is subject to universal principles owing to the largely biological nature of needs that shape its activities and the firm impact of scientific developments, which spread almost instantaneously in today's globalised world. The same is the case with the impact of international medical aid offered by international organisations in accordance with jointly adopted standards. At the same time, however, the health sector is diversified not only because the epidemiological situations in these countries differ, but also because all activities undertaken there are determined by the level of economic development, differences in health policies, as well as culture and traditions.

The overall course of the significant institutional changes in the health sector in the post communist region was quite similar but they were introduced with varying dynamics and their scope was not uniform. Consequently, at present we are facing an unexpectedly large number of solutions. In some countries, one can still observe the type of governance characteristic of the central planning system, while in the others, a totally new order has been introduced, which in certain cases can even be more advanced than the solutions regarded as innovative and reformatory in Western countries.

By the same token, the health status of the population in the region of former communist countries is very much varied, even more so than in the Western world. At one extreme, there is a group of countries that entered the path of improved health condition and are getting closer to the level observed in the old Europe, albeit very slowly, and at the other

extreme there are countries with populations in the state of a serious health crisis, and with rather slow recovery dynamics. Health status differentiation is different from what can be witnessed in the old EU member states: not only the average countries, but also transition leaders in that respect display worse indicators than the average for the old EU.

We use the concept of transition countries to refer to the former 'bloc' of communist countries that have changed (or are in the process of changing) their political system and the economy from the centrally planned one to the market one. The analysis comprises both Central and Eastern European countries, most of which already belong to the EU or wish to apply for membership. These countries will be referred to as CEE (Central and Eastern Europe) throughout the text. Former Soviet republics that belong to the Commonwealth of Independent States will be referred to as CIS.

Method of analysis and sources of information

Changes and reforms in the health care sector in less-developed post-communist countries have been undertaken in the context of an earlier phase of epidemiological changes and a lower health status of the population, as well as in the context of accelerated demographic processes when compared with the countries of Western Europe. Problems posed by the above constitute the focus of analyses offered in the present study.

The lower health status of the population in former communist countries is accompanied by inadequate financing in the health care sector connected with a low level of per capita GDP, which explains poor funding for health. As Newhouse (1977) showed, the income alone (GDP per capita) accounted for 92% of the variation in health care expenditure per capita. At the same time, in the post communist countries various reform attempts were made, but their effectiveness was somewhat limited.

Although – as can be inferred from Lalonde's thesis (1974) – there is no explicit cause-effect relationship between the functioning of the health care system and the health status of the population, the quality of the system represents a significant requirement for health safety and has a fundamental impact on the evaluation of general well-being in the society. The article is thus an example of the current research that explores links between the effectiveness and quality of the health sector and its impact on the health and quality of life of the population. It does not yet attempt to analyse the opposite direction of influence: the impact of the health status of the population: the impact of the health of the population on the economic performance of the country. If we start to perceive good health, like high qualifications, as constituents of human capital, it constitutes a significant although difficult to

measure, factor of development potential and economic growth of the country. Analyses of this direction of health impact have lately gained in research popularity¹.

The present study² has a comparative character. On the one hand, it compares institutional characteristics, tendencies of change and directions of reforms undertaken, on the other hand, indices of their effects on the health status and the material-financial situation of the health sector. The analysis is based not only on the survey of available literature on the subject, but also relevant desk-research documents. The author of this paper has participated in a number of consultancy and advisory projects in the countries under consideration, hence the conclusions offered are also the fruit of 'participatory observation' and her own evaluations confronted with the evaluations present in national and international reports.

The present analysis takes advantage of several data sources, including the WHO Health for All database (HFA) and the OECD database on health. Important sources of information on institutional changes in health care and epidemiological changes in countries under research are WHO Health Care Systems in Transition (HIT)³ and WHO Highlights on health⁴ publications.

Coordinated by the GVG (Die Gesellschaft für Versicherungswissenschaft und gestaltung) study, Social Protection in the Candidate Countries, conducted on behalf of the European Commission, allowed for a more extensive inclusion of the macroeconomic context and the connections with social protection. The study analyses social welfare systems in the 13 candidate countries.

Additional sources of information are the AHEAD (Aging, Health Status and Determinants of Health Expenditure) project reports on health and morbidity in the accession countries: Bulgaria, Estonia, Hungary, Poland, and Slovakia. The Project, coordinated by the Centre for European Policy Studies (CEPS), is still in progress and is implemented within the

¹ Cf. especially Suhrcke, McKee, Sauto Arce, Tsoлова, Mortensen 2005, and Suhrcke, Rococo, Mekce, Mazzuco, Urban, Steinherr 2007.

² I would like to thank Ms Agnieszka Sowa and Mr Roman Topor – Madry for helping me in collecting the epidemiological data and preparing adequate graphs.

³ HITs are country-based profiles that provide a description of each health care system and of reform initiatives in progress or under development. HITs seek to provide relevant information to support policy-makers and analysts in the development of health care systems in Europe. HITs are published within the framework of the European Observatory on Health Care Systems, coordinated by the WHO European Centre for Health Policy. HIT country profiles cover a number of subjects, including health care funding; health care system reforms; organization of primary, secondary and tertiary care; purchasing and pharmaceutical sector regulations.

⁴ Country "Highlights on health" are also coordinated by the WHO European centre; however, their scope of interest is different. Country reports provide overviews of the health and health-related situation in a given country and compare, where possible, its position in relation to other countries in the WHO European Region. The highlights have been developed in collaboration with WHO Member States and are based on information provided by Member States and other sources.

European Commission 6th Framework Project⁵. The reports refer to relevant national sources, including Ministries of Health, research institutes and national statistical offices.

1. Country profiles: a demographic perspective

The countries surveyed differ with respect to their size, population and level of well-being. There are small countries, such as the Baltic States: Estonia, Latvia and Lithuania (population ranges from 1.4 m in Estonia to 3.6 m in Lithuania), large countries, such as the Ukraine (population 50 m), Poland (38 m) and very large ones, such as Russia (144 m). Some of them come very close to Western European countries with respect to the living standards, such as the Czech Republic (ca. US\$16,000 per capita), and others are very far removed, such as Moldova and the Kyrgyz Republic (US\$1,500 per capita).

Despite the fact that in terms of size and structure of the population CEE and CIS countries are strongly differentiated, the main tendencies of these changes are similar: their populations are decreasing and the share of the elderly in the population is increasing. According to some hypotheses, demographic changes in post communist countries were a consequence of political and economic transformation (ICDC Unicef 1994.) However, more detailed analyses indicate that these processes began as early as the mid-1980s, especially with regard to the changes related to population decrease and ageing due to decreasing fertility (Okólski 2004.)

The demographic trends in the CEE and CIS countries are typical of developed countries and have already been felt by Western European countries. Nevertheless, there are discrepancies between the transition countries and the EU-15. First, the dynamics of demographic change is significantly higher in the CEE and CIS than in the EU-15. Secondly, the immigration into the CEE and CIS is much smaller. Indeed, those countries are characterized by high emigration levels. Thirdly, to date, the ageing of the population and low fertility rates have been observed in the countries with higher income than in the CEE and CIS. In his discussion of these changes in the context of economic development of former communist countries, Nicholas Eberstadt describes these processes as unprecedented (Eberstadt 2005).

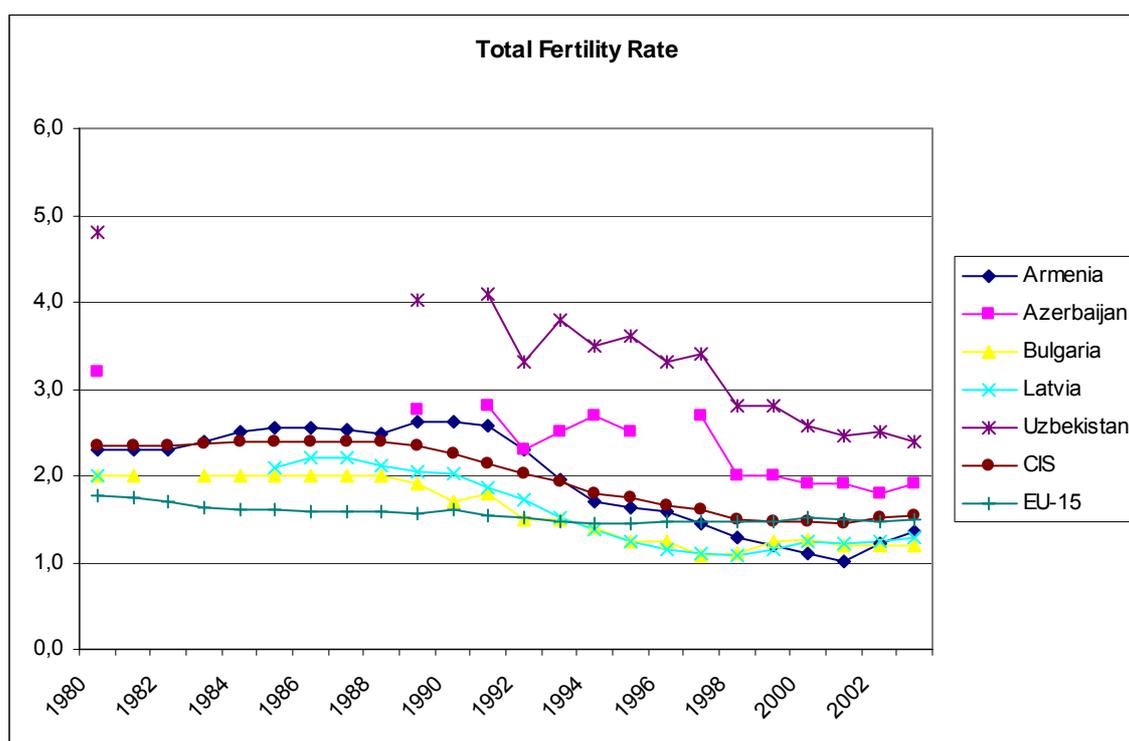
In all CEE and CIS countries, the population stabilized at the beginning of the 90s. Then there arose the tendency for lower birth rates, which, combined with emigration,

⁵ The presented analysis was partly conducted as part of the AHEAD project by Center of Social and Economic Research – CASE based in Warsaw. The reports were prepared by national teams of experts and cover issues of health status, health care systems performance, including a description of last reforms, legal regulations and the structure of the health care system, empirical analysis of factors explaining changes in health status and medical services utilization.

resulted in decreasing populations. Migration, albeit mostly temporary labour migration had an additional negative impact on the observed changes in terms of the structure of the population. Two types of factors have contributed to the decreasing population and the change of its structure: the decrease in fertility and – to a lesser extent – emigration. These processes were accompanied by stabilization and, in some countries, by improvement in mortality levels.

The decreasing numbers of new marriages and fertility rates can be observed in all analysed countries with the strongest trend in the CEE average, particularly in Bulgaria and the Baltic states. CIS countries also demonstrate a strong decline in fertility; however, variations across countries are large. The highest dynamics of fertility decrease is observable in Armenia; while in Uzbekistan and Azerbaijan the dynamics of fertility changes are lower and the TFR level is close to the population reproduction level.

Graph 1. Total fertility rate in selected transition countries



Source: WHO Health for All Database 2005

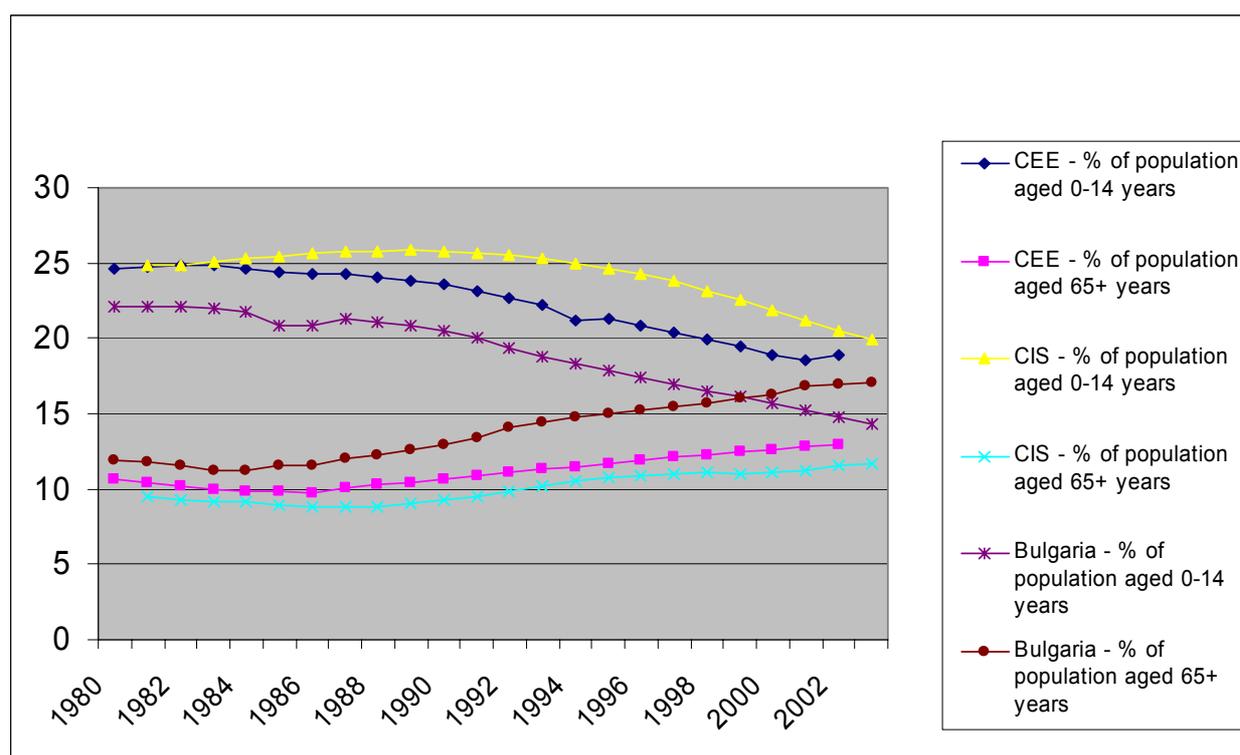
The population decrease was accompanied by changes in the structure of the population. In all the post-communist countries, the ageing process can be observed. The ageing process in these countries started later than in Western Europe, but in recent years it has been characterized by higher dynamics than in the EU-15. On average, the share of the population over 65 in the CEE and CIS region is below the average EU-15 level of the indicator. However, the gap between old EU-15 and new member states countries is not

large. This process is reflected in declining mortality of the elderly. Among the CEE countries, only in Bulgaria and Romania has the mortality rate of the elderly not been decreasing.

With respect to the criterion of the share of elderly in the country population, the following 6 groups of countries can be distinguished:

- Balkan countries and Hungary 16%-17%,
- Baltic countries 14%-16%,
- CIS European countries Romania and Georgia 13%-15%,
- Central Europe and Kazakhstan 12% – 14%
- Moldova and Armenia – 10%,
- CIS Central Asia and Albania 4%-8%

Graph 2. Share of the elderly (65 +) and children (up to 14) in the population of CEE and CIS countries



Source: WHO Health for All Database 2005

The increase in the share of the elderly is much lower in CIS countries. In some other countries, the share of the elderly has been stable during the last decade (e.g. Uzbekistan). These countries have not yet entered the ageing phase of demographic development.



The increase in the share of the elderly in the population is accompanied by a decrease in the share of children. The share of children below 14 years of age is opposite to the picture of the share of the elderly (Graph 2). The dynamics of this process is the highest in Russia, Bulgaria and Estonia, and it is the lowest in Central Asian countries and among CEE countries – namely, Slovakia and Poland.

2. Health care systems

When using the term system, one assumes the existence of a separate entity whose interdependent elements operate in order to achieve a pre-determined goal, which, in the case of the health system, is to maintain the health status of the population and treat diseases. In an ideal system, both individual elements and the entirety of the system contribute positively to the achievement of the stated objectives. Nevertheless, in reality we do not always deal with a well-operating system. This is also the case with health care. Therefore, when using the term system, what we have in mind is a certain separate sector that aspires to being a system, but has problems achieving this status.

When analysing a health care system, one usually describes its constituent elements, identifies relationships and mechanisms that connect these elements and determine their impacts on the performance achieved. A conventional description also comprises the influence (or context) of factors external to the system, such as economic or ecological development factors. A sample model that facilitates analysing health care systems is the above-mentioned HIT, for which a methodologically useful template has been developed and published lately (Mossialos, Allin and Figueras 2007).

When describing the health care systems and reform processes in post-communist countries, the above-mentioned convention was followed, but only to a certain extent. The focus of the study was on new regulations and institutional solutions in health care as compared with the pre-transition period. In consequence, the following issues have been considered:

- Historical background,
- Changes in the level of financing,
- Decentralisation,
- Organisational changes in health service,
- Health status of the population.

2.1. Health care system before transition

In communist countries, the health care system was an integral part of centrally planned state economic system. It was put under the category of socio-cultural facilities. In some countries, such an aggregate is still applied in financial planning and statistics.

At the same time, health care represented a clearly separated sector (system) of state management. The health sector included:

- sanitary, epidemiological and prevention services;
- mother and child care;
- education for medical professionals (nurses and doctors);
- curative health care services;
- sanatoria and rehabilitation centres.

Decisions concerning investments, resource allocation and health policy priorities were contained within the framework of five-year plans, and decisions concerning current functioning and financial issues – within the framework of annual material and budgeting plans. Lack of execution of designed indicators in the field of social services was a characteristic feature of the central planning system. After each five-year period, investment and productivity indicators in the industry and in the construction business were exceeded, while at the same time, targets set for education, health care and culture were not met. Due to the economic ineffectiveness of the system, more and more resources were allocated to the manufacturing sector in order to achieve the designed effect. In consequence, fewer and fewer resources were channeled to the areas defined as non-productive, including, among other things, the area of health care. Extreme disparities between the so-called productive and non-productive sectors were particularly conspicuous in Poland⁶.

The foundations of the health care system concept were based on the so-called Semashko⁷ model. The model was founded on the following premises:

- central authorities are responsible for health;
- access to health care services is universal and free-of-charge;
- there is prevention against the so-called 'social diseases';
- provision of health care is based on high-quality medical professionals;
- there is a very close link between medical scientific research and practice;
- preventative, curative and rehabilitation services are integrated.

⁶ Financing of some social services, first and foremost health care, was 'shifted' to the private sector, which had been allowed to continue in Poland due to the needs of the population living off private farming, as that part of the population had no access to the so-called 'social' health care until the end of 1980's. It must also be added that as far as political decisions were concerned, financial benefits always received prominence over social services (Golinowska1990).

⁷ Nikolai Semashko was a Russian physician and politician (1874–1949), the first health commissioner in the USSR, who designed a vision of health care operations within the framework of centrally planned system.

This model was quite similar in all the countries in terms of the structural approach, albeit not totally homogeneous as there were discrepancies in the level of systemic integration. In many countries, primary health care was totally merged with specialized care (the concept of poly-clinics), and referral to in-patient care was subject to decision by a physician from the clinic. In other countries, one could access in-patient care through a decision made by a physician from outside of the clinic system, for instance, in Poland it could have been a doctor from the so-called medical cooperative (in fact, it was a system of private practices⁸), or from the system of industrial health care. The latter was better developed and better equipped than the generally available sector of health care. In the course of time, industrial health care (selected branches of industry) has also developed its own hospital care, as well as rehabilitation centres and sanatoria. Furthermore, such closed sub-systems (parallel systems) of health care were established not only by particular industries, but also by some branches of services, e.g. the railways, the military, the police and central administration. While the presence of 'islands' of industrial health care was justified by the ideological dogma of the leading role of the working class and its extraordinary merits in country development, in the case of central administration and the so-called 'military' services, their privileged access to health care was kept hidden behind the 'yellow curtains'. Needless to add, those special islands of health care had better infrastructure, and the system itself was fully integrated, from health promotion to preventive tests to out-patient and in-patient care to rehabilitation.

There was limited access to the physician and health care unit of choice. One could get access to the hospital of choice, other than through geographical jurisdiction, by having an informal 'connection' with the ward head, through the system of cooperatives of specialist physicians⁹, private practices or by means of an illegal payment. Another point of difference concerning the health care sector concerns the role of regional and local administration, which was twofold. On the one hand, general, on the other, sector (special branch administration) related. Particular public service sectors had their own, separate local and regional administration systems. The same was true of health care. In some of the countries, the sector structure dominated the geographical structure of general administration, while in others it was subordinate to general regional administration (Mihalyi 2002.)

By and large, for quite a long time the health care system was regarded as accessible and quite acceptable from a medical point of view. Given the fact that after World War II it

⁸ Private practices of specialist physicians in Poland were established for the peasant population, which was operating in the private sector and, as such, had no access to state health care. From the end of 1960's, peasants were gradually acquiring the title to social insurance and health care after the farm was transferred to the state treasury. Total equality of rights was introduced in 1990.

⁹ In the course of time, cooperatives of specialist physicians have evolved into a channel of access for inpatient care unit of choice (which employed the specialist who was providing health care services in the cooperative as well) for everybody who could afford to pay for this (Golinowska, Tymowska 1994.)

was focused on combating infectious diseases, prevention and health status screening tests, as well as rehabilitation (Tragakes, Lessof 2003), its protective role was appreciated by the general public. It must be noted that due to this protective aspect of the health care system, the development of individual responsibility for one's health was largely limited.

2.2. System changes during transition

During transition, reforms were prepared in all CEE and in some CIS countries. They all went in a similar direction. They were implemented with varying emphasis and over different time spans. Those reforms can be summarized under four target headings:

- Separation of the health sector from the integrated system of budget planning and introduction of employer funding and/or employee contributions;
- More autonomy for the health sector at the regional level and more autonomy for health care units within the public system;
- Privatisation of isolated segments of health care;
- Introduction of financing mechanisms that provided medical personnel with the same level of compensation as the average in the national economy, at the minimum.

2.2.1. Introduction of mandatory health insurance

A vast majority of transition countries (CEE and CIS) achieved the first goal of the reform, namely, they introduced health insurance¹⁰ with an earmarked fund established from the pay roll tax, instead of integrated budgetary funding financed from general taxation. Health insurance was introduced gradually: in Hungary, in 1990, the social insurance fund, including health care, was separated from budgetary funding, and then (in 1992) the health insurance fund was further isolated from the social insurance fund¹¹. Over the same period of time, the Baltic States designed their health insurance schemes within the framework of reforms prepared for the new independent states (1991). In Russia, mandatory health insurance was introduced together with optional private insurance as early as 1991. In Slovakia, health insurance was introduced in 1994, in Georgia in 1995, in the Czech Republic, Kazakhstan and the Kyrgyz Republic in 1997, in Romania in 1998, and finally in Bulgaria and Poland in 1999. In the remaining countries, health insurance legislation was drafted and implemented only in the first decade of the 21st century. Interestingly enough, in Turkmenistan, optional state health insurance was introduced in 1996 and in spite of its

¹⁰ Health insurance was not introduced in Ukraine, Belarus and in the Caucasian Republics, in spite of the fact that appropriate legislation has been drafted.

¹¹ In Hungary, the health insurance premium was earmarked as late as 1996. Before that, one premium for all insurable social benefits was calculated. The total premium equaled 52.5 % gross compensation, and the health insurance premium isolated therein – 22% (Gaal 2004, p. 37.)

optional character, 90% of the country's population is covered by that insurance (WHO HIT Turkmenistan 2000).

As a consequence of health insurance implementation, access to health care services was restricted to the insured (employed and entitled to financial social benefits replacing labour income – and their families). Thus, contrary to the status from the past, not all residents of a given country could automatically access health care services free of charge. The health insurance system did not include, first and foremost, the categories permanently outside of the labour market, which sometimes referred to the Roma ethnic minority, for example in Bulgaria (Koulaksazov et al. 2003), among which permanent employment was rather uncommon. Residents who had problems with entering the labour market, such as graduates, for example, also found it hard to obtain health insurance. Youth unemployment constitutes a very serious social issue in transition countries. As a result, in some of the countries universal health insurance does not cover most health care expenditures. This is the case of Russia, Bulgaria or Kazakhstan, for example. In Kazakhstan, since 1999 practically all expenditures have been taken over by the state budget.

In the course of time, the opinion on the effects of the introduction of social insurance was not unequivocally favourable, especially among the insured and patients. In order to enter the health care sector, each time a patient had to present a record to prove that he or she actually owned insurance. Older people, unaccustomed to this, saw it as a restriction and did not perceive health insurance as a step in the right direction. Such a view was prevalent especially in Poland and led to a stipulation that general taxation funding system be implemented (MZ 2004), which was grasped by some politicians and was presented as a part of their 2005 election programs. Medical circles, in contrast, continued to see the conservation of health insurance as a prerequisite for transparency in health care financing, and at the same time as a first step to the rationing efforts in access to health care (defining the package of insurance services) and introducing additional insurance (for the benefits outside of the package).

The tough labour markets in transition countries, which were going through a massive economic restructuring, became a major cause of the shrinking of proceeds in health insurance funds. Regional authorities became involved in health care financing, but first and foremost, the level of individual payments began to rise. Governments in transition countries have been trying to avoid increases in the health insurance premium due to the fact that this step would have an impact on labour costs. In some countries, e.g. in Hungary, those concerns resulted in a premium decrease, but there are also cases of rising 'insurance tax' (payroll tax), e.g. in Poland a gradual premium increase is taking place by 0.25 points. To a large extent, the status is contingent upon the premium calculated at the outset. In Hungary, in 1996 the premium was very generous – 22%, whereas in Poland it was set at a much

lower rate – 7%, which significantly contributed to the permanent financial imbalance in the system (Golinowska, Sowada, Wozniak 2007). In Hungary, the premium went down as the contribution ceiling was reduced.

It is interesting to look at the structural evolution of health insurance. In the majority of transition countries – following the German pattern – many regional and/or industrial funds with significant autonomy were established. In the course of time, however, independence and/or autonomy became more limited, and payer functions were centralized again. In Estonia as early as in 1994, one Central Sickness Fund was put in place, reporting to the Ministry of Social Affairs, and in the course of the 90's other system management functions were also shifted to the national level (planning and programming, sanitary inspectorate, health promotion etc.) In Latvia, the payroll tax was replaced by a different tax (a part of personal income tax or PIT) in the middle of 1990's, and in 1997, sickness funds were centralized. In 1998 in Hungary, the self-governing nature of health insurance, in place since 1993, was discontinued. Authorities had previously been appointed by social partner organizations (trade unions and employer associations.) At present, there is a National Health Fund supervised by the Ministry of Health and the Ministry of Finance. In Slovakia, initially there were 13 health insurance companies, but subsequently, this number was reduced to five. In Poland, 17 sickness funds were established, but they operated for only four years. Since 2003, there has been one fund – the National Health Fund – with its regional branches. In 1999 in Bulgaria, a central fund was created right away, with 28 regional funds and 120 local branches.

Due to the presence of many payers with significant autonomy, health care system coordination was hindered, if not ruined altogether. Furthermore, the concept of competition between the payers, which was the driving force behind the establishment of many funds, turned out to be totally unrealistic in practice. The current return to centralization, however, is not synonymous with the centralization known from the era of the centrally planned economy. In the present situation, the point is to create an environment conducive to the application of uniform rules, increased capacity for rational resource management and overall supervisory functions, rather than to exercise direct central planning.

Health insurance is not the only source of funds for the health care system. The contributions coming from budgetary financing (general taxation) remain quite high, both at the central budget and regional self-government levels. As can be inferred from the data presented in the Table 1 below, the share of financing from general taxation is quite varied. In CEE countries it has a lower level than in the CIS, where the costs of health care are covered either by the budget or directly by the patients. Slovakia has the lowest share of funding from general taxation in all the CEE: in Slovakia, the lion's share of funding comes

from health insurance. It is also quite low in Poland, where we are witnessing extremely high share of contribution from personal resources of the population.

Table 1. Public health care funding by source and level (2002)

Country	Health insurance premium % of gross salary	Share of health insurance in total health care funding %	Share of budgetary resources (from general taxation) in health care funding %	Share of public means in total health care funding
Bulgaria	6,0%	10,0 (2000)	70,0	80,0
Estonia	13,0% (for health care and sickness insurance)	65,6	10,7	76,3
Lithuania	3,0 (1997) and later as part of PIT – 30%	65,3	6,4	71,7
Latvia	as part of PIT – 28%	-	65,7	52,5* (65,7 – 2003)
Poland	from 7,5% (1999) to 9,0% (2006)	57,0 (2003)	8,0	72,4
Czech Republic	13,5%	81,5	10,2	91,7
Slovakia		85,9	3,2	89,1
Hungary	from 22% to 14% (2002)	71,6 (2000)	12,2	70,2
Romania	from 10% (1998) to 13,0% (2003)	56,8	15,6	72,4
Russian Federation	3,4% (2000)	21,1	50,0	About 71,1 (without informal payments)
Ukraine	budgetary funding	-	66,4	66,4 (2000)
Belarus	budgetary funding	-		77,0
Republic of Moldova	Introduction foreseen for 2003 – 2004		50,0	50,0** (91,1)
Georgia (2000)	direct private payment	-		8,0
Armenia	Budgetary funding and direct payment	-	25,0 – 28,0	25,0 – 28,0 (2000)
Azerbaijan		-	40,0	60** (77,2)
Kazakhstan	3,0%, 1999 return to budgetary funding	40,0 (up to 1999)	55,0	91,1, overestimated value of the indicator
Kyrgyz Republic	2,0% from the employees, 6,0% land tax and voluntary contribution from self-employed	4,1	44,6	48,7** (97,0)
Tajikistan		-	65,0	65,0
Turkmenistan	4,0% (1997) – voluntary participation	7,0 (in public)	74,5 (in public)	About 40,0
Uzbekistan		-	40,0	40,0

*according to some Latvian literature the level of public financing is lower (Chawla, Kulis 2005) than in the WHO: Health for All Database 2005

** shares are given based on WHO HIT reports, where share of public expenditures is much lower. In brackets data from the WHO Health for All Database 2005 are shown.

Source: WHO: Health for All Database 2005, WHO: Health Care Systems in Transition for relevant countries, European Commission: MISSOC 2004 for relevant countries and for Poland: MZ 2004

2.2.2. Health care funding from private funds

In every transition country, there has been a systematic growth in the share of personal financing, which primarily consists of out-of-pocket payments. Still, there has been a significant discrepancy in the ratio of public to private funding in health care. Georgia has an extremely high share of private funds in health care sector financing, exceeding 90%, followed by Armenia, Azerbaijan and Uzbekistan with approximately a 60% rate, and then by Russia and the Kyrgyz Republic at about 50%. Then we have a group of countries where the level of private financing is equivalent to 30-40%. In the other countries, the contribution of private funding represents from several to more than 20%. There is low level of private funding in the Czech Republic, in Slovakia (in 2004 co-payments were officially introduced there, which is bound to increase the share), in Belarus and Kazakhstan.

Private, voluntary health insurance has not been widely developed. Russia was the leader in establishing a legal framework for the functioning of private insurance (1991), followed by Hungary (1993), where this type of insurance covers only approximately 1% of health care expenditures (Gaal 2004.) This kind of insurance is mostly related to financial benefits for the coverage of costs incurred by disease. Private health insurance is also present in the Baltic States, encompassing therapy-related travel and transportation costs (travel insurance) (GVG 2003). Regulations allowing optional private health insurance were also passed in several Asian CIS states: in Azerbaijan and in Armenia (1995). It did not lead to the substantial development of health insurance companies, however.

There will be no private insurance on a greater scale in transition countries as long as the scope of services provided by the state from public funds has not been defined and limited. The launch of open service rationing is one of the most serious challenges facing not only transition countries, but also many Western European countries. In the former communist countries, the approach of a guaranteed service 'basket' defined by the state was first applied in Russia, but due to the extremely low and decreasing level of health sector financing, even restricting the scope of guaranteed services did not bring about sustainable balance in the public system. It turned out that even a limited 'basket' is difficult to finance, and within its scope informal payment by patients emerged (Shishkin et al. 2003.) A similar thing happened in Moldova, where public funds were insufficient to cover the defined basket of services (MacLehose 2002) and in Armenia (Schoen-Angerer 2004).

The former communist countries have also officially introduced patient co-payments for health services which are a part of public benefits package. Such decisions were mostly made in the CIS, with Russia leading the way. In 1998, co-payments were formally

introduced in Azerbaijan and initiated in the Kyrgyz Republic (2001). In recent years, statutory decisions in that field were taken in the CEE countries as well: in Estonia, Latvia, Bulgaria and Slovakia.

Apart from official co-payments, in all the countries of the region included in the analysis there are also unofficial payments that essentially represent additional gratification provided 'under the table'. The nature of those payments, surprisingly, can be quite varied. They can sometimes be semi-official, for instance when the providers introduce some payments 'in their jurisdiction' because they do not have public funds and there are no binding legal regulations to forbid such practices. They either set the price for services or implement entry fees to a health care unit, fixed or in discretionary amount, e.g. in Poland there was a popular system of the so-called 'donations' charged by hospitals. Practices of that kind take place in highly decentralized environment and when the providers are to a large extent independent.

Side by side with the payments introduced autonomously by health care units or local payers, one can also witness the presence of totally unofficial payments, charged by medical personnel. Perhaps in some cases we should describe it as payments that are accepted rather than charged. The word charge is justified in the circumstances when medical personnel create the environment of coercion. When there is a customary expression of gratitude for care towards medical personnel, we typically speak of tokens of gratitude. In practice, it is extremely hard to separate the different reasons behind the presence of unofficial payments. That is why many countries organize special campaigns against such practices within the framework of anti-corruption campaigns.

Table 2. Private funding of the health care sector: type and share

Countries	Type of private funding	% in total
Bulgaria	Legal co-payments (low since 1998) and private insurance (low since 1998) with marginal demand (Koulaksazov et al. 2003)	20,0
Estonia	Legal co-payment for selected services with exceptions for defined social groups, supplementary private insurance for the compulsory insured and for persons receiving pensions from the foreign states	23,7
Lithuania	Co-payments to drugs, sanatoria and outpatient medical assistance	25,0 + external sources (3,0)
Latvia	Common co-payments, mother and child care and emergency services are an exception	Over 30,0 + external sources
Poland	Drug co-payments, dental services and to limited outpatient services, direct payments to health services in the private part of the sector	35,0
Czech Republic	Co-payments to dental services, drugs and emergency services	8,3
Slovakia	General co-payments (13%) in public sector with	10,9

Countries	Type of private funding	% in total
	exceptions: preventive services and child care	
Hungary	Co-payment to dental services, sanatoria, services without a referral, better lodging conditions in hospital and slowly development of mutual insurance (since 1993)	16,2
Romania	Drug co-payments, better lodging conditions in hospital, prosthetic appliances and selected diagnostic tests, private dental services	~25,0
Russia	Drug co-payments, private payments to dental and optical services, medical aid and prosthetic appliances and others from outside the package of guaranteed services, private insurance (3,5% premium) since 1993	47.0 (estimation from full base – Shishkin et al. 2003)
Ukraine	Private insurance: regulation introduced in 1996 – used by 1.5% of the population, co-payments: drug and participation in the cost of some health services	32,8 + external funding
Moldova	Co-payment officially introduced in 1999	
Georgia	Direct private financing and official co-payment under the public system since 1995	92,0 + external aid
Armenia	Direct payments to hospital stay and services, and co-payments to drugs and rehabilitation, private insurance legislation accepted	60.0+external sources – 15,0 (Telyukow 2001)
Azerbaijan	Exceptions for certain groups of individuals (socially sensitive and privileged), and for types of diseases (e.g. diabetes)	~60,0 (Holley at al 2004)
Kazakhstan	Co-payments: officially, since 1995 public providers have charged payments	
Kyrgyz Republic	Co-payments officially since 2001: non-medical services that accompany medical ones, drug co-payments, dental, upon patient request and other – depending on the insurer	~51,0 + 10,0 external sources (Meimanaliev at al 2005)
Tajikistan	Co-payments officially only 1%: dental services, diagnostic tests and rehabilitation, unofficially 2/3 of total health care spending	significant external funding – about 34,0
Turkmenistan	Drug co-payments, and in reality since 1991 gradually all outpatient care with exemptions and alleviations	60,0 + ~2,5 external aid

Source: WHO Health for All Database 2005, WHO *Health Care Systems in Transition* for relevant countries and for Poland MZ 2004

2.2.3. Decentralisation

The decentralising direction of changes in health care entailed numerous expectations, and meeting those expectations turned out to be extremely difficult.

One major goal behind decentralization was to shift governing functions in the sector to the regional level. This shift to the regional level was a response to a tight monopoly of central authorities. Even before the regions could enjoy the mandate of authority in their jurisdiction (regional self-government), government administration had been delegating to the

regional level some governing functions in the health care sector. In many transition countries, regional offices had already been in place¹². Delegation of authority was supposed to be replaced by autonomy and the regional self-government was to be held accountable for health care management. This tendency went hand in hand with the overall trend to bestow significant decision-making powers upon regions in each country, although it carried particular weight in larger countries.

In order to secure adequate competence in health care to autonomous regional self-government, there was a need for relevant departments or separate regional institutions at that level, capable of managing the complex health care sector. Such institutions or the departments of regional government were established in a systemic way¹³, but in many countries, health care administration at the regional level is still rather weak, much weaker than at the central level; and due to the permanent shortage of funds there are no investments in this level of management. At the same time, owing to the expectations concerning better coordination, related to much greater autonomy and privatisation of providers, side-by-side with greater autonomy of the lower, local level of self-government, new instruments and well-qualified personnel are in high demand. A number of studies (e.g. Chernichovsky and Potapchik 1997) describe the issue of the fragmentary nature of the health care system in Russia as a result of the failure of the reform carried out in at the beginning of 1990's.

It is interesting to analyse the line of division and the relationships between regional and local self-government units on the one hand, and health insurance organizational units on the other. In some of the countries, regional authorities are superior to the payer, i.e. relevant health insurance organization (e.g. in Russia¹⁴). In others, both categories of institutions operate in an independent way, subject to their separate hierarchy of authority (e.g. in Poland.) Finally, there are countries where relevant cells of regional and local self-government have become subordinate to health care institutions.

As a result of decentralization, municipality and county units became the owners of public assets, unlike in the previous system, where this prerogative rested exclusively with the state at the central level of governance. Consequently, regional and local self-government units became the owners of health care units and were responsible for the

¹² In Poland e.g. that function was referred to as the regional (voivodship) medical officer; it was a person whose responsibility, on behalf of the government, was to supervise the whole set of issues related to the functioning of health care units in a given region.

¹³ E.g. in Bulgaria 28 regional health care institutions were established, in Georgia there were 12, Hungary intends to create 7 regional health commissions. In Poland such institutions never originated. Consequently, sickness funds assumed a lot of management functions in health care and, being exceedingly domineering and autonomous, they angered providers as well as regional authorities. Eventually, they were dissolved and their payer functions were centralized.

¹⁴ In Russia one can observe extremely varied relationships between insurance institution and regional organization that finances health care. In many regions (oblasts) regional organizations are quite dominant, and in 16% of cases health insurance is non-existent (Tragakes et al. 2003).

development of those units. Transfer of ownership functions with regard to health care units to the regional level took place before a national network of health care units was established – its purpose would be to guarantee equal access and rational geographical layout. In practice, that fact became a barrier to geographical planning exercise. Local self-government units did not have the same interest in mind as central and regional authorities with regard to the future fate of many units, and thus rationalization of the health care unit network turned out to be a very difficult issue to solve. It must be remembered that geographical layout and the number of health care units (most importantly, hospitals) in former communist countries had been affected, among others, by the military doctrine of the Warsaw Pact and, as such, required adjustments and significant improvement in the equality of access. In the years 1995–1996, Hungary made an attempt to introduce to that purpose minimum statutory requirements in terms of equipment, employment and quality, side-by-side with service provision standards a hospital located in a given community would have to meet in order to win a contract with the health insurance fund (Capacity Act), which has become the cause of a long ‘struggle’ and negotiations with local authorities, and at the end of the day, a certain reduction in the number of hospital beds was achieved, followed by stabilization (Gaal 2004). In 1999, Bulgaria adopted the Law on Health Care Establishments, which presented a national map of key hospitals and outpatient primary and specialist health care units, as well as regional maps (National Health Map and Regional Health Map.) In 2001, Slovakia drafted a document called ‘Optimum network of health care facilities in the Slovak Republic’, which has served as a basis for regulations and decisions with regard to local health care units and equal distribution of those units across the regions..

The absence of a precise division of responsibilities for investment financing represents yet another cumbersome issue at the point of contact between regional self-government and the payer. There can be three solutions in that area: responsibility for financing investments in health care may rest solely with the local and regional self-government¹⁵, with the payer (health insurance fund), or it may be split between the central government, local and regional self-government, and the payer. Regional and local self-government is totally incapable of executing that task, and National Health Fund has no mandate to do that. In consequence, as hospitals buy equipment and renovate their wards, they permanently fall into debt (MOH 2004.) Hungary has double financing in that respect (both self-government and health insurance fund are obligated to provide funding), which generates high costs in the sector (Gaal 2004.) By the same token, Ukrainian regulations allowed financing investments from each level, which made the system completely non-

¹⁵ In Poland, for example, local and regional governments are held accountable in that respect, but they do not have sufficient funding to finance hospital investments. If they do invest, they very often incur debt (Golinowska, Sowada, Woźniak 2007).

transparent and, in fact, not manageable in that regard (Lekhan et al. 2004). In effect, the competence for investment planning and financing, as well as purchasing equipment for health care units was usually transferred to the central level.

In former communist countries, decentralization brought about extremely diverse results. Their quality was, on the one hand, related to the potential prior existence of institutional solutions for delegating health care management to the field, size of the country and the pace and extent of decentralization. In some of the countries, self-government units were forced to meet the new challenge right away and try to manage – such was the case of Russia, for example. In other countries, e.g. the Czech Republic, decentralization was preceded by a long preparatory phase, during which local and regional structures were supposed to develop a precisely defined framework and adequate instruments needed for independent functioning. Even in the Czech Republic, however, it is estimated that the public administration was not well prepared for the decentralization of health care management, especially in the area of in-patient care (Rokosova et al. 2005).

Deficiencies of regional and local governments that became apparent over a dozen or so years of health care sector decentralization, concern not only the self-government itself, but also the central government, which failed to make the adjustments required under new circumstances. In other words, at both levels – the one pertaining to central government and that of local and regional government units – we lack adequate mechanisms leading to more effective functioning of the health care sector. Central government and self-government units do not have relevant information, analytical and coordination tools, and the regions, on top of that, need institutional and human resource instruments. The management mandate was shifted downwards, but this move was not accompanied by the transfer of adequate, professional competences in health care for lower level units, or by the flow of financial resources.

As for professional competence, one must not forget that local and regional self-government units operate in the context of a significant shortage of funds. They were obligated to perform numerous tasks for the execution of which they had no funding. This included hiring highly qualified staff. Shifting health care issues to the regional and local level did not trigger the development of local and regional resources to a significant extent as those resources were extremely limited.

One conspicuous outcome of the decentralization process is the disparity in the conditions pertaining to the functioning of health care. In the vast majority of analysed countries, there are equalization mechanisms that regulate the inflow of funds to the regions. Government equalization efforts, however, are quite limited. This problem is more serious in CIS than in the CEE countries. According to recent research carried out in Russia,

equalization mechanisms designed to offset regional inequalities are highly ineffective and must be changed (Shishkin, Zaborowskaja, Czerniec 2005).

2.2.4. Changes in the organisational structure of the health sector

The health sector, much more integrated under the previous organizational structure, in the course of reforms and changes became clearly divided from the standpoint of provided services and from financial point of view. Sometimes, it is even stipulated that at present this system is both de-integrated and disintegrated (Mihalyi 2002).

In transition countries, there has been an overall tendency to separate primary care and privatise it, to a great extent. Primary health care (PHC) physicians work in private units: as self-employed in their own surgeries within the framework of group practices or in bigger primary care units, with a complete range of primary specializations. For example, in Slovakia the share of 'private physicians' in PHC amounts to 94% (Hlavacka et al. 2004), in the Czech Republic – 95% (Rokosova et al. 2005), and in Poland it is more than 80% (MZ 2004), similar to the situation in Hungary and the Baltic States. In Russia, health care was not privatised, and that includes PHC physicians.

Privatisation of PHC does not mean that there are private financing sources. On the contrary, in most CEE countries and in Russia those sources are predominantly public; either from the local and regional self-government or from mandatory health insurance institutions. For example, in Russia they come predominantly from the self-government, and in Poland from the National Health Fund (NHF).

The development of primary care in CIS countries has not been as successful as in the CEE region. In Ukraine, for instance, specialist doctors work as primary care physicians more frequently than general practitioners. Primary care units do not employ quality professionals (in the countryside, they often hire paramedics), and regulations allow it to overpass that level of care. In other countries, the tendency to avoid PHC is additionally reinforced by low public financing of that level of health care. When a patient has to pay for treatment anyway, they prefer to see a specialist rather than a primary care physician – such a practice is also very common in Georgia.

In contrast to the previous system, at present patients are entitled to choose their PHC physician. There is no geographical jurisdiction any more, i.e. the assignment to a given outpatient clinic is not contingent upon the address of residence. Realistically speaking though, only urban residents can actually choose the physician. In rural areas of Russia and other CIS countries, patients' initial contact with medical services takes place in the so-called feldsher-obstetrical points. In larger localities there are PHC centres and group practices of primary care physicians, while individual practices remain less frequent.

More and more frequently, PHC doctors are family physicians. Medical education in the field of family medicine has been initiated and developed. At the beginning, a special 'quick path' was designed to that end, or it was completed during post-graduate course (e.g. in Russia), but now it is a part of regular medical college curriculum. Family physicians, as yet, are not a dominant medical specialty in any of the countries included in the study. Primary care is still predominantly based on the physicians representing two specialties: internal medicine and pediatrics. Sometimes, there is also a gynaecologist and obstetrician. The process of educating and hiring family physicians in PHC has the fastest record in Hungary and in Poland. Family physicians in Hungary operate together with paediatricians and in Poland they also cooperate with internal medicine doctors. In Estonia, financial incentives were put in place in order to promote post-graduate family medicine education (1998.) In Slovakia, there is a concept of a general practitioner in PHC, which also employs paediatricians and gynaecologists. In Bulgaria, the reform effort has started only recently and at this stage PHC is being isolated and freedom of choice for patients is being introduced.

It would be rather difficult to assess whether the function of PHC general practitioner and family physician, borrowed by CEE countries from Great Britain, will actually meet the expectations: on the one hand, the role of a guide through therapeutic process (integration function), and on the other the role of a gatekeeper. At present, it is believed that physicians from privatised PHC, financed under capitation and, partially, fee for service method, have financially benefited from the course of reform more than other categories of medical personnel, so far. As a result, there might be increased demand for work in the capacity of primary care physician with family medicine specialisation, it may also encourage physicians to improve their qualifications. Previously, work in PHC was not regarded as prestigious, but now it might begin to change. So far, however, PHC physicians do not commonly perform the gatekeeper function based on independent medical treatment. Quite often, patients visit them in order to obtain a referral to a specialist.

In CIS countries, the status of PHC is quite different. In those countries, primary health care physicians are still poorly compensated and they do not enjoy any prestige. In fact, patients try to avoid them whenever it is possible.

The function of a community nurse, who can individually or collectively conclude separate contracts with the payer, is a novelty in PHC operations in the CEE countries. The process of separating nursing care has barely begun. There are many arguments in favour of that solution, first and foremost the increase in nursing care needs due to dynamic population ageing, but it would be very difficult to predict what it will look like in practice. In former communist countries it is still believed that primary health care institutions (all kinds of health units and centres) are more reliable than an individual physician or a nurse. Among other

things, that is the reason behind the sustained pressure (in spite of the reform) on the utilization of polyclinics and in-patient health care services.

Outpatient specialist care is the core of a poly-clinic, an institution inherited from the Soviet era. In many CIS countries, this type of organization of specialists and day health care operates on the basis of old infrastructure. Polyclinics function at the regional (oblast) level, and at a lower, district (rayon) organizational level. Specialists see patients in hospital clinics as well.

In European transition countries outpatient specialist care operates in a more individual way. The share of private units in that group has been on the rise. In some countries, the prerogatives of specialist doctors have been defined on statutory terms. It also refers to, for example, the title to prescribe drugs needed in the therapy of a disease requiring specialist care (e.g. in Slovakia.) In other words, a PHC physician cannot prescribe each and every drug.

Hospitals were a principal institution of the health sector in communist countries. Their significance remains quite strong. Expenditures allocated to hospitals represent much more than fifty percent of public resources in CIS countries, where primary health care is poorly developed. In CEE countries, the share of hospital expenditures is lower than fifty percent but the reason is increased expenditures on drugs rather than some marked development in primary care (see the table below).

In a vast majority of cases, hospitals remain in the public hands of the government, either local and regional, or central. To a small extent, they are run by churches, monastic orders and NGOs. Some private hospitals have emerged: they do not provide therapy in the traditional scope of medical specialties but rather fill in certain gaps, or niches in the supply of in-patient care services. As far as hospitals are concerned, one big novelty is their significant independence – they have been operating as institutions with the so-called legal personality. In each of the countries included in the analysis, this independence has been specified on statutory terms.

Typically, hospitals vary according to the scope of medical activities they offer. It is related to the regional structure of the country and the size of population, which is to be served by a given unit. There can be three or four reference levels. In Russia and in bigger CIS countries hospitals are divided into four groups: small community hospitals (uchastok hospitals) with 20-50 beds, district hospitals (rayon hospitals), regional hospitals (oblast hospitals), and national specialist hospitals and university hospitals. Additionally, in Russia there is a parallel system of medical units connected with industrial facilities, special industries and professions. They gradually lose their isolated character. They are willing to

accept patients coming from outside a given facility or industry and apply for contracts with health insurance fund.

In Poland, for instance, there are three reference levels: *powiat* hospitals with a basic scope of specialties (internal medicine, obstetrics and gynaecology, surgery), regional ones – with extended specialties, and highly specialized national hospitals. In other countries, similar levels of hospital activity are in place. In practice, however, this is not always born out. Due to the principle of hospital independence, the development of medical specialties in a given hospital is often made following the decision of ward heads, who give preference to their own specialties, or as a result of the arrival of highly sophisticated equipment, frequently obtained as a free donation.

Traditionally, hospitals used to be run by medical doctors. At present, it has become more and more common to hire specialists – health care managers – to that purpose. The process of replacing medical doctors with managers is a difficult one, prone to many conflicts. On the one hand, medical doctors do not want to give their authority away to other professional groups. On the other, CEE countries still experience the shortage of hospital management specialists. What we mean here, though, is high calibre specialist, who could act as respectable partners for medical professionals.

Rehabilitation centres and sanatoria, widely developed in communist countries, are no longer perceived as health care units that naturally require support from public authorities. Even though there have been no official statements in that field so far, practice has shown that those centres are slowly disappearing from the area of health care. More and more frequently, they are financed by local authorities from their own budgets and from other social security funds, such as disability benefits. Rehabilitation is perceived as a preventive activity against disability (e.g. in Poland), and it is covered from social insurance funds. Further, sanatoria are privatised and in many cases turned into recreation centres or fitness club facilities. It is true that rehabilitation is often necessary in order to attain re-integration and return to the labour market of the people who lose their health or become disabled, but it would require a very effective multi-sector cooperation to sustain the existing scope of rehabilitation services, and at this point in former communist countries, such cooperation is extremely hard to achieve.

Another significant change in the functioning of the health care sector is the establishment of separate institutions for **socio-therapeutic care and palliative care**. Those institutions are targeted at people who are chronically ill and those older in age, who need nursing and carer services rather than therapeutic ones. For many years, such people were kept in hospitals due to the pressure of their families, but also, basically, the ethical pressure. After all, they can not have been shown the door and thrown in the street! There

has been slow development in the sector of public in-patient services for that category of patients. Development of private units in that area is much faster, frequently without any medical supervision at all. In Poland, this group of patients still finds shelter in monastic and church units. Long-term care (LTC) requires a separate approach in each of the CEE countries, drawing on positive traditions of family and community cooperation in that field. Yet, one must build awareness of growing needs and attach greater weight to that area as far as financing is concerned.

Public health has also been isolated within the framework of health care sector. To begin with, public health is a new idea in former communist countries. While it is true that in each of the countries in question, the health care sector included the so-called 'sanitary and epidemiological inspection' (San-Epid) with its regional administration, it must be remembered that sanitary and epidemiology inspectorate institutions were not involved in health promotion, various preventive activities and population screening tests. Thus, under the new circumstances sanitary and epidemiological inspection either had to expand their range of activities. Otherwise, new institutions were launched, whose mandate includes tasks related to public health. In Hungary, Poland and Bulgaria, the sanitary and epidemiological inspectorate is the institution that performs major functions in the field of public health, including new tasks. In Hungary and Bulgaria it is also responsible for mother and child care, school hygiene and a supervisory function over occupational medicine.

At the same time, additional institutions involved in public health were established in many countries. For example, in Russia, one of the research and scientific institutes (National Centre for Preventive Medicine), supervised by the Ministry of Health, launched a broad initiative aiming to build a scientific, technical and organizational base for health promotion and prevention of non-infectious diseases; to construct epidemiological databases and educational programs, to design methodology for health program assessment, etc. (Glasunov, Petrusovits 2000).

In Slovakia, centres were established for the implementation of the national health promotion plan, which was adopted by the parliament in 1992. Health advisory centres were also appointed to support residents in the area of non-infectious disease prevention. Since 2000, dispersed efforts in the field of health promotion have been closely coordinated at the national level within the framework of the State Health Institute of the Slovak Republic. By the same token, in 2003, Estonia established a new institution: the National Institute for Health Development, whose task is to monitor the health status in the country and report the findings, including issues related to environmental health, in order to implement national public health programs at the local and regional level, and to provide relevant training.

In view of an extensive incidence of new infectious diseases, in particular HIV/AIDS, new programs and institutions were established to run preventive activities against these disease. In Ukraine, which has a very high level of HIV/AIDS incidence, programs and relevant institutions have been created upon presidential decree.

All in all, the structure of the health care sector in transition countries contains many new elements, but it also retains some old ones. CEE countries have made more changes in their organizational structure than the CIS. During the transition period one can observe the process of fractioning and segregation in the sector. On the one hand, segregation along the line of primary care, specialized hospital care, rehabilitation care and sanatoria, socio-therapeutic care and public health and on the other hand, according to ownership structure and types of constitutive organs. Due to the problems with regulating this modified system and coordinating it properly in the current environment, it is very difficult to foresee its integration from a medical and organizational standpoint. This represents a challenge for another phase of the reform effort. The challenge has already been taken by some of the countries, e.g. Hungary, where a new initiative originated under the name of the 'care coordination pilot'.

In former communist countries the dominant share of expenditures on hospitals, which represent the most expensive part of the system, is a serious issue. In the CEE, hospital expenditures have begun to decrease in relative terms, but in the CIS this is not the case. Actually, in some of these countries – the poorest – hospital expenditures have been on the rise.

2.3. Level of funding in the health care sector

Health care expenditures in former communist countries are much lower in absolute terms (USD *per capita*) than in the old EU: in the CEE region they are lower, on average, by more than four times, in the CIS countries by over 10 times or more. If we control those expenditures against GDP per inhabitant, according to many authors they will not be different from the expenditures in the countries of comparable wealth (Goldstein / Preker / Adeyi / Chellaraj 1996, Mitra 2005, Chawla /Kulis 2005). In other words, poor countries spend relatively little on health, whereas affluent countries spend relatively more. Let us examine this phenomenon in greater detail.

Table 3. The level of health care funding; absolute (USD per capita) and relative (GDP %) indicators, 2002

Country	GDP per capita USD PPP	GDP per capita changes 1990 =100	Total health care expenditures per capita USD PPP	Health care expenditures changes per capita 1990 =100	Share of health care expenditures in GDP	Changes in the period of 1990 – 2002; percentage points
Armenia	3120	99,6	86 (1993)		2,4 (2000)*	
Azerbaijan	3 210	99,9	26	25	0,8	- 2,8
Belarus	5 520	96,4	259	118 (1991=100)	4,9	+1,7
Georgia (2000)	2 264	49,4	136	82 (1991 =100)	5,1	+0,6
Kazakhstan	5 870	124,5	111	56 (1991=100)	2,0	- 1,3
Kyrgyz Republic	1 620	46,0	31	32 (1992=100)	2,0	- 1,4
Republic of Moldova	1 470	37,7	53	39 (1991=100)	4,0	+0,1
Russian Federation (2000)	8 377	103,3	243	135	2,9	+0,6
Tajikistan	980	38,3	9		0,9	-
Turkmenistan	4250	100,5			4,6 (1997)	-
Ukraine	4 870	89,6	166	98 (1991=100)	3,4	- 0,1
Uzbekistan	1 670	53,6	40	24 (1991=100)	2,4	- 3,5
CIS (average)			192 (2000)		2,9	
Bulgaria(2000)	7 130	151,7	214		4,7	
Estonia	12 260	190,4	625	207 (1992 =100)	5,1	+0,6
Lithuania	10 320	142,6	588	363	5,7	+2,4
Latvia	9 210	210,0	451	280	4,9	+2,3
Poland	10 560	215,5	654	219	6,2	+1,2
Czech Republic	15 780	136,8	1205 (2003)	217	7,6 (2003)	+2,6
Slovakia	12 840	167,2	698		5,7	+0,7
Hungary	13 400	180,0	911 (2001)	185	6,8	+0,7
Romania	6 560	234,3	275	348	4,2	+1,3
CEE (average)			539		5,6	
EU-15 (average)			2323		9,0	

Sources: WHO Health for All Database 2005, *Taylor at al. 2002

Data from the table above indicates markedly diverse funding of health care in transition countries. First and foremost, this discrepancy is related to varied economic development levels and dynamics in those countries and secondly, with health care sector preferences.

Among the CEE countries, one can observe a clear economic improvement measured by the level of GDP *per capita*. Over 12 years this rate improved by 1.5 to more than 2 times. Expenditures on health care in those countries grew at the same rate, at a minimum. That means that health care expenditure income flexibility rate in those countries is higher than 1.0. The increase in expenditures exceeded GDP *per capita* growth in the Czech Republic (and in Slovenia, which was not included in the analysis, but its preferences are known from other studies, e.g. Chawla, Kulis 2005) and in Latvia, Lithuania and Romania. In the case of the last two countries, we are witnessing low absolute funding accompanied by the strongest increase in health care preference, equivalent to about 3.5 times. To a lesser extent, this is also true of Estonia, a country of impressively successful transition which at the same time has had to face serious problems with the health status of society.

Poland and Hungary increased their expenditures on health care in keeping with the growth of GDP *per capita*. Yet, Hungary has a substantially higher absolute level of health care expenditures than Poland¹⁶. Proportionate increase in total expenditures does not concern public funding. Consequently, the increase was caused by growing expenditures from private sources, mostly personal income of the population. A similar trend can be observed in some other former communist countries (Staines 1999.)

The situation in the CIS countries is more diverse. On the one hand, there are countries that reached the same level of GDP per capita as in 1990 only recently. This category consists of large European countries (first and foremost Russia, then Belarus, and Ukraine is slowly getting close to that level), two Central Asian countries: Kazakhstan and Turkmenistan, and two Caucasian CIS countries: Armenia and Azerbaijan. In Russia and Belarus, expenditures on health care have been growing slightly faster than GDP per capita, and in Ukraine they did not decline more than GDP. But in Central Asia and in Caucasian countries the situation is very difficult indeed. The level of health care expenditures is extremely low and notwithstanding some economic growth improvement in some of those

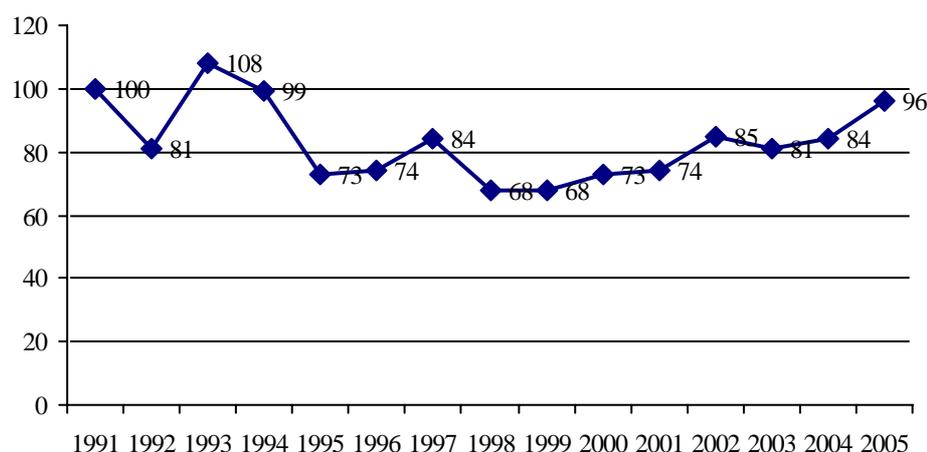
¹⁶ In this respect, Poland is different from CEE countries in terms of several other criteria. To begin with, Poland has relatively much higher total social expenditures controlled by the level of GDP per capita, and lower expenditures on health care. What this means is that, among social purposes, expenditures on health care are given lower priority than other expenditures, despite universal declarations presenting health as the most valuable asset, both from individual and social point of view. Another difference is demonstrated by the fact that dynamic economic growth in Poland did not translate into growing public expenditures on health care. Low public funding is offset by relatively high private funding with ineffective allocation structure (MZ 2004).

countries (e.g. in Kazakhstan), their share of expenditures on health care has been going down.

In the countries which seem to exhibit slightly better health care funding indicators, such as Russia for example, an important issue is the significant decline in funding from public resources. The graph below illustrates the decrease in public funding in Russia in 1990's.

In the majority of the countries subject to analysis, a low level of health care funding and low preference for health care expenditures on a macro-economic scale are accompanied by the phenomena which contribute to the state of additional imbalance and tension in the sector.

Graph 3. The dynamic of real (inflation-adjusted) public health care expenditures in Russia (1991=100%)



Sources: Shishkin 2007, estimations based on the State Statistics Committee (1997, 2004) and Rosstat (2005) data on public health care expenditures and GDP index-deflators.

The first of those features is the increasing share of private expenditures from the personal income of the population. This was discussed previously, in the section devoted to the analysis of changes in health care during transition. However, increased private funding is not brought about by official systemic changes (reforms), but rather by a low level of funding from public resources. In many of the countries there is an official, declarative context of free-of-charge access to health care services, but those declarations are not supported with adequate public funding, and the participation of the population in health care funding is growing in a systematic way.

There are enormous discrepancies in the scale of private funding in health care. In poorer CIS countries, especially in Caucasian countries: Georgia, Armenia and Azerbaijan, health care is basically financed exclusively from private resources. In other countries, there is a 50-50 ratio of public and private financing. In the CIS countries, only Belarus has maintained a high share of public funding. In the CEE, Latvia has the highest share of private funding – about 50%, followed by Poland, Lithuania, Romania and Hungary with approximately 25% – 35%.

Under such circumstances, when official title to access gratuitous health care is not followed by adequate funding, apart from an obvious restriction in access to health care services in the countries with very low income of the population (e.g. in Kazakhstan or Armenia), there is a financial imbalance in the health care system; there are deficits and health care facilities systematically fall into debt. It was only recently that the issue of imbalance in the health care sector received more attention¹⁷. Initially, the attention focused on the effectiveness of health care unit management, considering the context of substantially greater autonomy in micro-economic decisions. Then, it was shifted to the structure of outlays according to major cost factors in the sector, primarily the compensation of medical personnel¹⁸ and the cost of drugs.

Data on the share of pharmaceutical and salaries expenditure in the total health sectors funding, side by side with detailed studies analysing selected countries (WHO HITs, MZ 2004, Chawla /Kulis 2005), illustrate the common tendency¹⁹ towards a steady increase of the share of drugs as a percentage of total health care costs (in most cases, by about 10 percentage points in 1990 – 2002)²⁰, with a simultaneous decrease in the share of expenditures on remuneration for medical personnel (extreme salary reductions are observed in Estonia (22%) and in Azerbaijan (20%). Very few countries, such as Ukraine and Uzbekistan, have opposed that tendency; in these countries, the share of both elements has been on the rise.

An increase in expenditure on drugs, which has been particularly conspicuous since the end of 1990's, can be observed in many countries worldwide (OECD 2005). It is

¹⁷ Cf: e.g. MZ 2004, Chawla, Kulis 2005

¹⁸ Decline in expenditures on medical personnel compensation seriously impedes effective management in the sector. On the one hand, low compensation leads to a tolerance for informal payments and the presence of a grey economy in medical services, and on the other to multiple employment among physicians. Both factors destroy system quality and are barriers to incentives which might result in changes for the better.

¹⁹ Despite the significantly different share of the pharmaceutical expenditures: >30% Slovakia and Georgia; 20-30% Estonia, Latvia, Poland, Czech Rep. and Belarus; 10-20% Uzbekistan, Turkmenistan, Kyrgyz Rep., Azerbaijan, Moldova and Ukraine; <10% Kazakhstan.

²⁰ The share of drugs in health insurance expenditures in analyzed countries does not show the full picture of this complex issue. There is an additional problem of growing out-of-pocket expenditures on drugs. The share of out-of-pocket expenditures in total household health expenditures is equivalent to, for instance, over 50% in Estonia, over 60% in Poland, and over 70% in Hungary (WHO 2004 and MZ 2004).

suppressed only in the countries with powerful control in that field, strong social policy, and significant extent of drug cost reimbursement, such as Sweden and the Czech Republic.

Drug policy in transition countries has many shortcomings. The health care sector, albeit still mostly public (at least as the owner of primary equipment), is functioning in the market environment and numerous goods, in particular drugs necessary for the provision of health care services, are purchased on the market, according to market rules and prices. As a consumer for a huge pharmaceutical market, the health care sector has great difficulty in supervising the medical quality and cost effectiveness of purchased products, in the context of scattered and increasingly autonomous provider structures and insufficiently developed administrative institutions (both at the central level and even more so at the regional and local levels). This explains relatively high drug expenditure growth dynamics and their growing share in the expenditures on health care, considering the generally low level of funding in the sector in comparison to OECD countries. Moreover, drug policy in former communist region is carried out without a rational standard; it is likely to be either too liberal or excessively restrictive, with limited access to innovative quality drugs of clinically proven effectiveness.

3. Health status of the population development

The health status of the population is sometimes treated as a direct effect of economic performance and the medical quality of the health system. As was mentioned at the beginning of this paper, the relationship between these elements of the health system and the health status of the population is not unambiguous. In countries subject to a number of diverse and dynamic changes – be they political, demographic, economic or social changes radically impacting the conditions of life and behaviours of individuals, the health status is a result of a number of factors, whose significance is still disputed by a number of unconfirmed hypotheses.

Below follows a survey of basic indices and tendencies that illustrate the health status of the populations in post-communist countries with an attempt to sketch a picture of emerging changes. More and more often published are various in-depth works of international and national experts describing the status of populations in analysed regions, thanks to which it is possible to provide a synthetic survey without a detailed analysis.

In international comparisons, one can use several synthetic indicators to illustrate the health status of the population. Average life expectancy, life expectancy (LE) for short, is one such fundamental indicator. At present, this indicator is more and more frequently

supplemented with its quality-oriented variety, i.e. the expectancy of life in good health – health-adjusted life expectancy (HALE.) Other very illuminating indicators which relate to the health status of the population describe such aspects as infant mortality, general mortality and mortality in the breakdown according to basic causes of death. Of those, the infant mortality rate seems to be of particular significance from the standpoint of social and health conditions typical of a country population, as it is closely correlated with the level of social prosperity. Morbidity indicators would play a substantial role in the identification of the health status of the population. However, their availability, as well as credibility, are rather limited.

3.1. Life expectancy (LE)

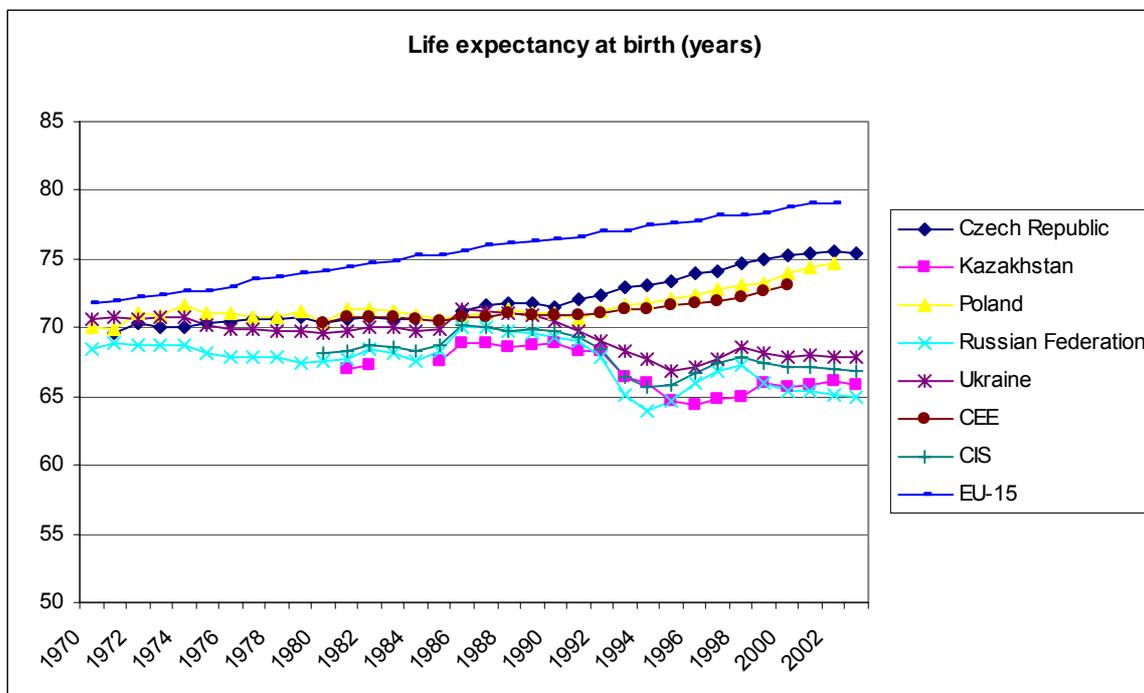
Life expectancy indicators in CEE countries exhibited strong improvement dynamics during the period of about 20 years following the end of the war. Subsequently, a period of stagnation or even deterioration of LE set in, which marked a trend contradictory to that exhibited by Western Europe²¹. The phase of stagnation started in the middle of 1960's²². Its principal cause was high mortality among adult men (referred to as premature mortality or excess mortality). The largest gap with regard to the countries of the West could be observed in Hungary, where despite subsequent improvement in the late 90's, premature mortality rate among men remains the highest of all OECD member states (Gal 2004.)

During the 1980's, one can observe a trend fluctuation in CEE countries. In some of the countries there is marked improvement, e.g. in the Czech Republic. In Hungary the LE indicator decreases at the turn of the 70's and 80's to swiftly return to the rising trend, albeit at a slightly lower level. Similarly, there is a very brief return to the rising LE trend in Estonia in the decade of the 80's. Notably, LE rising trend in the years 1984 – 1987/1988 can be observed in the majority of European countries of the former USSR. This is associated with decreased mortality related to alcoholism, which in turn seems to have its roots in the phase of 'perestroika', during which an intense anti-alcoholic campaign was held and access to alcohol became more limited (Mckee and Leon 1997).

²¹ In Western European LE indicators have demonstrated a favorable trend all through the post-war period. Improvement was noticeable with respect to all population groups in terms of age, men as well as women, which is well evidenced particularly during the time from the beginning of 1970's to the beginning of 1990's. Likewise, the gap between LE values for male and female citizens was reduced (Europäische Kommission 2003).

²² The disparity between Eastern and Western health patterns in Europe did not attract attention at first. Marek Okólski offers a hypothesis that mortality trend disparities have been marginalized (Okólski 2004.) Even though the analyses confirming this trend disparity appeared as early as the decade of the 70's and then the 80's (especially Burgeois – Pichat 1984), it was only in the 90's that the issue received more attention.

Graph 4. Life expectancy in selected transition countries



Source: WHO Health for All Database 2005

At the end of 1980's, the stable or rising LE trend is reversed, and that continues until about 1994. This represents a period of health crisis in former communist countries, attributed to a serious decrease in GDP and the collapse of many public institutions (including those related to health care), together with the stress caused by the hardships of adjusting to new requirements and uncertainty about the future. One of international reports which was published on that subject (ICDC Unicef 1994) pointed at the varying depth of the crisis and different rate of recovery, depending on the level of prosperity and the extent to which social tendencies were similar to those in Western countries.

In the second half of the 90's one can observe in CEE countries an improvement in the trend as far as average life expectancy is concerned. Five groups of LE improvement dynamics became conspicuous among transition countries. The first group consists of Slovenia, Poland and its southern neighbours--the Czech Republic and Slovakia. The next, slightly belated, group consists of Hungary, Romania and Bulgaria, the third the Baltic States, the fourth – Caucasus and Central Asia countries. The last category – European CIS – experienced a particularly deep depression and their recovery towards a favourable health trend has not been completed so far. From that standpoint, the Baltic States do not particularly resemble CIS countries.

Of CIS countries, there are two groups. In the Caucasus and Central Asia CIS, the level of health present before 90 has yet to be achieved. The European CIS and Russia, in particular, are still in the middle of a health crisis.

Progress in life expectancy at birth in the CEE countries is adjusted with the indicator representing healthy life expectancy, referred to as HALE (healthy adjusted life expectancy). An analysis of HALE– i.e. life expectancy augmented by a morbidity component – demonstrates the less well-recognized phenomenon of a high level of ill-health in some CEE countries, particularly in CIS countries among the population of working age. Indeed, the difference in healthy life expectancy between, e.g. in Poland²³ and Russia, and Western Europe is even higher than that for life expectancy alone. This confirms that morbidity data contain important information not captured by mortality/life expectancy data (WHO 2002, Suhrcke M. et al 2007).

Progress in average life expectancy at birth is related to the improvement in two indicators describing the causes behind discussed tendencies. One of those indicators is infant mortality rate, and the other one is standardized death rate.

3.2. Infant mortality rate (IMR)

The overall infant mortality rate, being closely tied to the level of economic development, was decreasing together with the increase in the level of national income per capita in transition countries as well, but the progress was slower than might be expected, considering only the factor of economic growth; it also varied across countries (Goldstein et al 1996). The highest IMR drop dynamics could be observed directly after the war and it was faster than economic growth. Widespread provision of health care for expectant mothers and small children, public inoculations against infectious diseases targeted at small children and access to public health care brought about positive health effects, which were reflected by the trend of falling infant mortality rates. Still, it was already in the 1960's that progress dynamics slowed, and in the decade of the 80's some countries (e.g. the Baltics) even saw a negative trend.

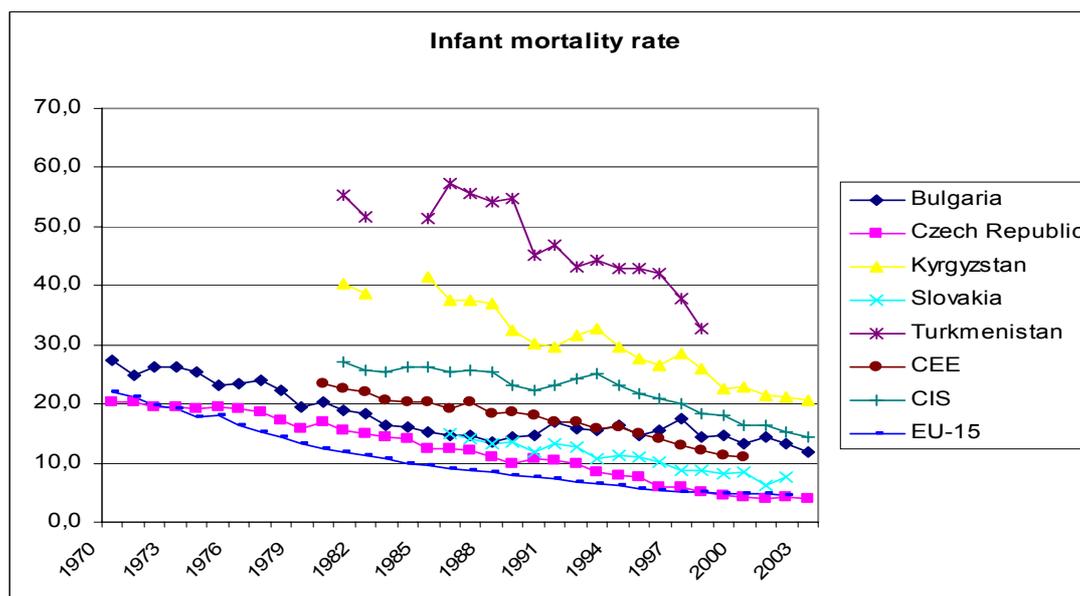
In the 90's, the IMR improved especially in those transition countries which are now EU members, and over recent years its improvement has been extremely dynamic, even more so than in other Western European countries. Still, the value of IMR among new EU member states is approximately 50% higher than in the old EU countries. There are significant fluctuations of the trend in the Southern European candidate countries, in

²³ Of all the CEE countries, Poland has the significant gap between life expectancy at birth and health-adjusted life expectancy. That would indicate that improvement of the ratio in Poland is rather of extensive nature. Longer life is less healthy than in other countries.

particular Bulgaria and Romania. In the 1990s, the infant mortality rate in Bulgaria started to increase again from the total of 14.8 per 1000 to 17.5 in 1997 (which is the highest level after 1983), declining afterwards to 12.3 in 2003. The higher IMR was accompanied by the increase in low birth weight (LBW) and high prevalence of hypotrophy among children under 1 year of age. According to research done by Bulgarian paediatricians, quoted in ICDC Unicef (1994), the high IMR was affected by factors such as inadequate diet and widespread incidence of behaviour posing a health hazard among pregnant women, e.g. smoking during pregnancy. In a Bulgarian report on health status of the population (Rangelova 2005), it is suggested that apart from the obvious impact of profound and extended economic downfall during transition (as the worst situation was around 1997), the higher IMR of the 90's was also caused by the fact that the Roma population was included in Bulgarian statistics²⁴.

In CIS countries infant mortality is significantly higher than in CEE countries. In Central Asia, the decline of infant mortality began only in the 90's. At that time, in Uzbekistan the level of this indicator was more than twice as high as the average in CEE.

²⁴ The Roma population represents 3.6% of the total Bulgarian population, according to the 1992 Population Census. *The Roma have lower income than the rest of population, many live in miserable conditions, fertility and infant mortality rates are higher than of the other ethnic groups; life expectancy is about 10 years less than for the rest of population. In the condition of depopulation of the country, including migration of young Bulgarians it is possible the impact of the higher (and increased) infant mortality of the Roma population on the total indicator for the country to be stronger* (Rangelova op. cit).

Graph 5. Infant mortality rate in selected CEE and CIS countries

Source: WHO Health for All Database 2005

3.3. Mortality

The standardized death rate (SDR) is yet another indicator which can be applied to explain the flow of LE trends.

As was mentioned earlier, in the 1960's, communist countries entered the path of increased mortality, contrary to Western European countries, where mortality indicators continued their downward trend. SDR rising trends can be observed until the middle of the 80's. Premature male mortality for men under 65 years of age represented the primary cause of the less favourable status in CEE countries. There is no unequivocal rationale for the phenomenon of early male mortality during the communist era. Some experts emphasized poor working and living conditions in the countries of intense industrialization without respect for environmental protection and 'socialist modernization' (e.g. Okólski 1988), whereas others paid more attention to the lifestyle, marked by excessive alcohol consumption and smoking tobacco (Shkolnikov et al. 1996).

The second half of the 1980's witnessed a short-term decreasing trend in mortality rate, and the turn of the 80's and 90's brought about quite rapid increasing trend, which is related to the transition crisis²⁵. Recovery from the crisis in the countries included in the research is varied. Poland and its Southern neighbours went through the crisis in a relatively

²⁵ The evaluation of the health crisis during transition is far from unequivocal. According to some of the opinions, this crisis had started earlier, before transition, but due to insufficient information and neglect of its symptoms, it was hardly noticeable (Okólski 2004.) In Poland, for example, the standardized death rate for men aged 45 – 64 increased over the years 1966- 1991 by about 50 % (Okólski 2004, p. 272.) On the other hand, according to Andrea Cornia, ICDC Unicef (1994) report coordinator, higher mortality and lower LE are an aftermath of the crisis related to rapid GDP fall and systemic changes, and can be compared to other crisis periods in history.

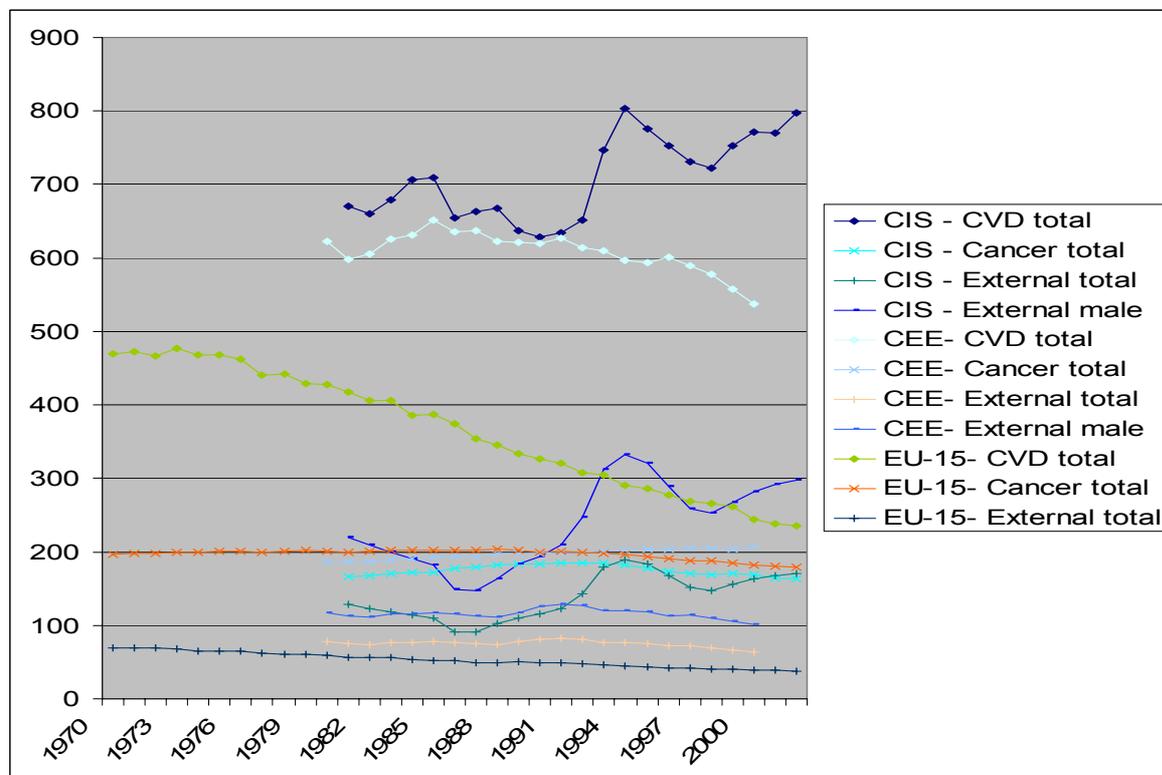
easy way and consequently, in the second half of the 90's, a decrease in death rate substantially contributed to the increase in the LE indicator. The crisis in Hungary and the Baltic states was more severe and lasted longer, while in Bulgaria, the first symptoms of recovery could only be observed towards the very end of the decade of the 90's.

Despite an improvement trend, which originated towards the end of the 1990's in the CEE countries, given the current rate of SDR decrease, it might take from over 10 to 30-40 years for the health status to become the same (Goryński, Wojtyniak 2003). Only in the case of the Czech Republic and Slovenia are the indicators lower than the average for the old EU member states. (WHO 2002).

Primary causes of mortality

At present, the primary causes of mortality in post-communist countries are cardiovascular diseases, which account for over 50 % of all of deaths. This is a significant change from 60 years ago, when the Soviet model of the health sector was being developed, whose main focus was to combat infectious diseases. The graph below presents the tendency of the standardized death rate in a breakdown according to major causes.

Graph 6. Tendency on standardized death rate according to major causes



Source: WHO, Health for All Database, 2002-2005

In Central European countries, the decrease in mortality caused by circulatory diseases turns out to be the principal reason behind the improvement in mortality status. In old EU countries, the share of those diseases is substantially lower and it amounts approximately to 40%.

Poland has been the most successful case of decreased death rate related to mortality caused by circulatory diseases in the 1990's, although mortality indicators per 100,000 inhabitants in Poland are still almost twice as high as the average for the old EU member states. In Poland, this rate equals 545 for men and 346 for women, whereas in the EU it is 298 and 192, respectively. On the other hand though, some experts in the field warn that statistics in that area are incomplete, as it does not take into account the so-called sudden deaths whose cause has not been identified due to the fact that autopsy is performed rather infrequently under the circumstances (Drygas 2005), and sudden deaths may be related to circulatory diseases. Nevertheless, the trend remains the same, although the rates including causes of sudden deaths (this rate is extremely high in Poland) would be slightly worse (by 6%-8%).

In the CIS region, mortality due to circulatory diseases is very high. The indicators in Russia are twice as high as Polish indicators. The tendency for the CIS is still negative.

Reports describing the health status in 1990's of former communist countries, which analyse both the causes of increased mortality related to circulatory diseases at the beginning of the decade of the 90's and its drop in the second half of the decade and the beginning of the next one, point to the significance of various factors, although the composition of the list remains the same. On the one hand, the authors emphasize the importance of diet, lifestyle and environmental issues. Diseases related to drinking alcohol and smoking tobacco are presented as major causes of premature mortality among men in Russia and other Eastern European countries (Shkolnikov, McKee, Leon, MacLehose, Zatoński). Consequently, the circumstances which are conducive to drinking and smoking (additionally, for example, cigarette advertising during the first phase of transition – Staines 1999), as well as promotional and preventive activities (undertaken on a greater scale only in the second half of the 90's), were the most frequently cited explanations for premature mortality. On the other hand, clinician circles pay more attention to progress in diagnostics, access to new medical technologies (with respect to circulatory diseases – intervention cardiology and cardiac surgery) and drugs (increased consumption of statins), as well as the launch of programs targeted at improving medical rescue systems in emergencies and development of rehabilitation programs. A decrease in the circulatory disease death rates in Poland and Czech Republic is to a great extent attributed to medical factors (Drygas 2005, Rychtarikova 2004).

In terms of scale, neoplastic diseases represent the second most serious cause of death. In Western European countries they are responsible for 30% of deaths, and in CEE countries their share is relatively lower – about 20%. However, in the old EU member states the death rate related to neoplastic diseases is already falling, whereas in the new countries it has barely begun. In the old EU there is significant progress in premature death indicators, below the age of 65, although the share of diseases resulting from neoplasm is on the rise (Europäische Kommission 2003).

Hungarian rates are higher than CEE average and Bulgarian ones are lower. A trend of improvement is still rather unclear. Actually, until the end of the decade, the mortality rate related to neoplastic diseases in CEE kept growing.

In CIS countries, mortality due to cancers is lower than on average in all post-communist countries and than in the old EU. Male mortality rates are higher than female ones and there is a conspicuous growth tendency until the end of the decade. There is a marked decrease in the rate at the turn of the decade in Slovakia (and earlier, in the Czech Republic). Among afflicted men, lung cancer is a typical neoplasm, and among women breast cancer and cervical carcinoma are most prevalent. In the old EU countries, breast cancer is the most frequent cause of death for women, whereas in the CEE, cervical carcinoma takes the lead. It is estimated that the top phase of cancer-related deaths among men was at the end of 1990's, but breast cancer and cervical carcinoma among women still take their deadly toll and the status is quite alarming.

On the basis of global estimations of WHO expert opinions, about 25% of neoplastic disease morbidity can be avoided by virtue of adequate steps in the field of health promotion and prevention, and thanks to contemporary medical knowledge approximately 1/3 of neoplastic disease cases can be successfully treated. In the next 25 years this rate may go up to 50% (WHO 2002, p. 37). The earlier the detection, the greater the chance of recovery; thus, screening plays a great role in fighting cancer. Unfortunately, screening is expensive. However, neoplastic diseases represent such a large load, as measured in DALY units (about 12% of total cost of all diseases – WHO 2002, p.19), that the alternative cost of screening tests in precisely defined risk groups can decrease that load to a significant extent.

- The third group of most common mortality causes relates to accidental injuries, murders, poisonings and suicides. Together, these are referred to as external causes, not related to the health status of the individual. There are substantial discrepancies across the post-communist countries with regard to the extent of this phenomenon. Lower mortality due to external causes is observable in Central Europe, CIS Caucasus and Central Asia. Contrary, in Russian Federation and Balkan countries – especially countries involved in the Balkan war – the level of this indicator is high, almost twice as high as in the first group of countries.

Mortality due to external factors strongly varies across CEE countries. However, even in countries with the lowest level of this indicator, it is still above the average of old EU members. Poland, Slovakia, the Czech Republic and Bulgaria exhibit similar indicators, which are approximately 50% higher than the level in Western Europe. In Hungary, the rate is 100% higher, and in the Baltic States it is 4 times greater. The level of external cause mortality rate in CEE countries is much higher especially with regard to transport accidents, suicides and self-mutilation. The gap between the male rate in Eastern and Western Europe is also greater than in the case of women.

In Estonia, external causes represent a basic cause of mortality among men aged 15-44. Suicides, transport accidents, environmental factors (cold), alcohol poisonings and assault are the most common external causes for mortality in Estonia (Roovali 2005). According to the reports describing high external cause mortality in the Baltics, transport accidents represent a significant contribution, particularly motor vehicle traffic accidents. In 1998, their rate was more than twice as high as in the old EU countries, e.g. in Latvia SDR for that cause of death was equivalent to 28, whereas in the UE countries it was 10.7 (McLehose 2002).

3.4. Morbidity

At the outset of morbidity analysis, it must be recorded that indicators from that field do not carry the same quality as mortality indicators. The latter are more credible, although some reports claim that in former communist countries mortality indicators cannot be trusted, either. Nevertheless, in the group of the five CEE countries included in the analysis there has been marked improvement in record-keeping and reporting, as those countries have become involved in international morbidity registers (concerning infectious and neoplastic diseases) and in programs aimed at combating those diseases.

During the post-war period, communist countries have been quite successful in eradicating infectious diseases. However, as soon as civilization diseases, related to lifestyle and environmental conditions, became an issue both the health care system and the overall state policy turned out to be rather ineffective in combating those diseases, and the insufficiently funded health care sector exhibited low capacity. Increase in morbidity and premature mortality due to infectious diseases (NCD), especially among men, at the beginning seemed to be a statistical artefact (Leon, Chenet, Shkolnikov, Zakharov, Shapiro, Rakhmanova, Vassin, McKee 1997), but more intensive research corroborated the presence of that phenomenon and provided explanation for some of its causes.

At present, a review of morbidity trends in CEE countries shows that the trends are slowly entering the phase of epidemiological transition which, on the one hand, displays decreased mortality due to basic non-infectious civilization-related diseases, such as circulatory and neoplastic diseases, and on the other hand, increased morbidity due to other civilization-related diseases, first and foremost mental diseases, then allergies, diabetes and chronic diseases connected with older age, such as osteo-muscular and digestive system diseases.

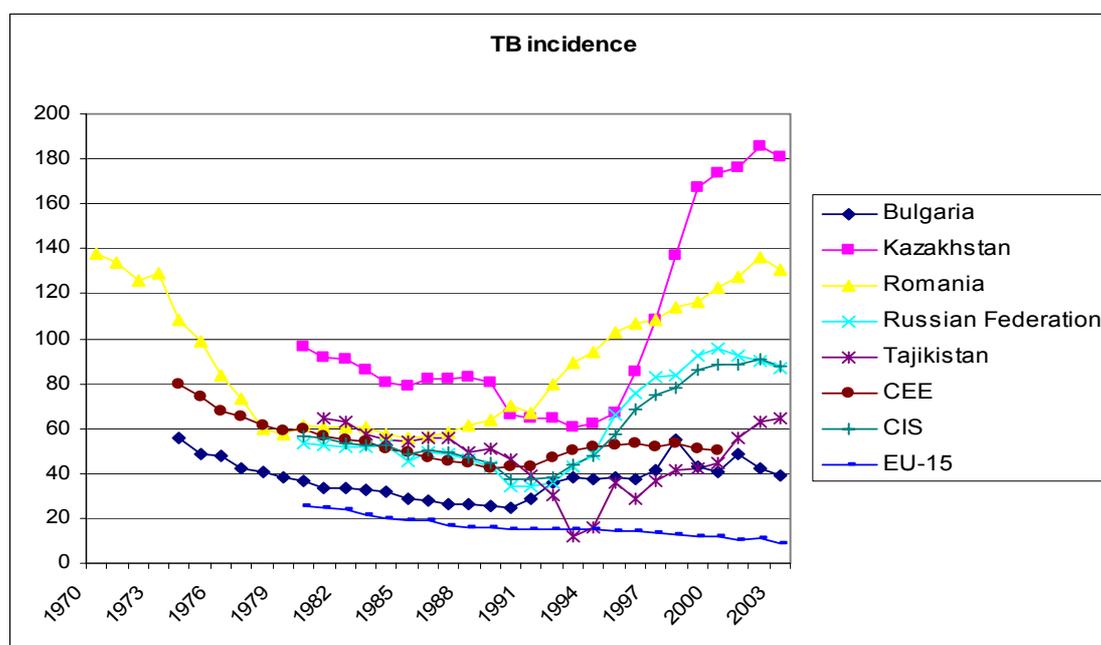
Infectious diseases

Despite a conspicuous tendency towards another epidemiological transition phase, in transition countries the scale of infectious diseases typical of poor societies, e.g. tuberculosis, is still quite high. The incidence of tuberculosis is most noticeable in the Central Asia states: Tajikistan, Kazakhstan, Uzbekistan and the Kyrgyz Republic. Among CEE countries, a relatively high level of incidence of tuberculosis can be observed in Bulgaria and Romania as well.

Trends in tuberculosis incidence are as follows:

- increasing incidence: Moldova, CIS Central Asia, Armenia
- very high level of incidence: Tajikistan, Kazakhstan, Uzbekistan and Kyrgyz Republic
- high level of incidence: Georgia

Graph 7. TB incidence in selected transition countries



Source: WHO Health for All Database 2005

At the same time, some transition countries are more affected by new communicable diseases, most notably HIV/AIDS. The disease is rapidly spreading in the Russian Federation, Ukraine and Estonia.

Data on the prevalence of HIV/AIDS are scarce due to the social stigma related to the disease. According to UNAIDS (2002), prevalence rates for the adult population are the following:

- 0,9% -1% – Estonia, Ukraine, Russia
- 0,4% Latvia
- 0,3% – 0,2% Moldova, Belarus, Kazakhstan, Armenia
- 0,1 Kazakhstan, Lithuania, Hungary, Poland
- < 0,1% Czech and Slovak Republic, Slovenia, South Europe, Georgia, Azerbaijan, Uzbekistan, Kyrgyz Rep., Uzbekistan, Tajikistan

Estonia is an exceptional country in the CEE region from the standpoint of HIV/AIDS incidence. The HIV prevalence rate in this country is estimated at 1% (UNDP 2004), which constitutes the highest rate in the new expanded Europe. In that regard, Estonia exhibits the same morbidity profiles as Russia and Ukraine.

The spread of HIV in the same CIS and Baltic region is closely linked with the rise in injecting drug use that developed after the collapse of the Soviet Union during the 1990s. This collapse occurred in the midst of severe socio-economic crisis, at time when Afghanistan became the world's larger opium producer. At the same time, trafficking routes through Central Asia were being diversified, the trafficking of heroin from Afghanistan and surrounding countries was rising, and drug consumption was increasing (Hamers and Downs 2003)

High HIV/AIDS morbidity in the region of CIS countries represents a significant risk of disease diffusion, above all, to the neighbouring countries.

Development of new non-communicable diseases

CEE and CIS countries are facing an issue of growing mental disease morbidity. On the one hand, mental diseases result from the still significant scale of incidence of alcohol disease and increasing wave of drug abuse. On the other hand, the incidence of depression is on the rise, which appears to be a new phenomenon in the region, although an increased number of recorded cases of depression suggests an implication of both greater access to mental health clinics and greater awareness with regard to therapeutic needs and possibilities, and not just increased incidence of the disease. Nevertheless, in the context of growing stress related to transition, competitive pressure, uncertainty, unemployment and

poverty, mental disorders represent an ever-increasing problem issue, analogically to suicides. This problem is more widespread among men than women.

CEE and CIS countries are going through a dynamic process of population ageing; the population is also seriously affected by chronic diseases and disability. The phenomenon of disability is rather difficult to present in international comparisons owing to different criteria adopted in medical and legal definitions of the problem across countries. Using the criterion of self-assessment (the so-called biological definition), it can be said that disability above the age of 45 is more frequent in CEE countries than in the old EU. In the past, occupational injuries and diseases were once a significant cause of disability. At present, given vast industry restructuring and demilitarisation, in tandem with substantial de-industrialization, industrial injury indicators have gone down to a large extent. That is not to say, however, that disability related to such causes is no longer present in the statistics. The disability rate is particularly high in Poland, where it also tends to affect the farming population on a significant scale (Golinowska, Piętka 2002, ILO 2003.)²⁶

The incidence of diseases, especially chronic ones, substantially aggravates the quality of life of the population. The HALE (health adjusted life expectancy) rate, which measures the average healthy life span, is by about 8 years lower in the CEE than in the old countries of the EU (WHO 2002), whereas the LE gap has gone down to less than 5 years. This implies a greater burden on health care, which in turn, given low funding in the health care sector, means that the expenditures not directly related to treatment, such as for example public health expenditures, are 'pushed out' of the pool of public funds.

4. Conclusions, challenges and recommendations

With respect to health care systems, former communist countries had to face a threefold challenge: first, due to transition problems, second, owing to the poor health status of the population and dynamic demographic changes and third, owing to inadequate or ineffective health care sector reforms.

Transformation problems comprise difficulties in overcoming the economic crisis of the first phase of transition, which in some instances still continues, the efforts inherent in the development of new institutional solutions (including the founding of new states) and huge

²⁶ The issue of disability in Poland tends to receive more attention as the burden of disability benefits on public finance than as a problem which requires more effort on the prevention side. To a large extent, this phenomenon concerns farming population, whose working conditions in traditional farmsteads with neglected infrastructure and equipment, side by side with the lack of approved work hygiene and safety regulations, can pose significant health hazard.

social difficulties in adjusting to the exceptionally dynamic pace of change exacerbated additionally by the process of globalisation, which has also affected the countries in this region.

The transition crisis, long-drawn-out in many of the CIS countries, has had an impact on the low level of funding in health care, declining in proportion to falling GDP or even faster. The continued crisis and slow recovery also affect low political preference for health care sector during GDP allocation process. There is excessive competition from other important socio-economic goals and health care frequently loses the battle. Health, which has both public and private value, is then treated as a purely personal asset.

Transition problems go hand-in-hand with dynamic demographic changes: first and foremost, falling number of births and, as a result, visible declining trend in population size and ageing.

At the same time, poorer of the transition group countries are facing an extremely difficult epidemiological phase. With the exception of several CEE countries (Czech Republic, Slovakia, Poland and, to a certain extent, Hungary), growing mortality trend related to the major group of civilization diseases – circulatory diseases – has not been brought under control yet, excessive mortality due to external causes has not been curbed, while the epidemics of new infectious diseases – HIV/AIDS – have made their presence (World Bank 2003, UNDP 2004), and old infectious diseases, e.g. tuberculosis, have re-appeared in some of the CIS countries (WHO 2000).

Health care system reforms were implemented together with the general wave of systemic and economic reforms, to a great extent independent of the epidemiological situation in any given country. Free economy and privatisation, independent public institutions and decentralization, micro-economic effectiveness – those words were on the banner of decision-makers, including health care reformers.

Below, specification of the main trends of the reform processes in post-communist countries is presented. It shows that while in CEE countries reforms aim at increasing efficiency and effectiveness of health care system management, in CIS reforms are more oriented towards dynamic privatisation. However, attempts to privatise the sector are a common trend in both groups of countries.

Table 4. Specification of reforms in transition countries

Direction of reforms	Countries and trends	Additional notes, atypical findings
Introduction of health insurance	Hungary -1990 Baltic countries and Russian Federation – 1991 Slovakia – 1994 Georgia – 1995 Turkmenistan – 1996	Coverage of public universal health insurance based on employment is not full due to big scale of unemployment. In Bulgaria i.e. health insurance covers less than

Direction of reforms	Countries and trends	Additional notes, atypical findings
	Czech Republic – 1997 Kazakhstan and Kyrgystan – 1997 Poland – 1999 Bulgaria – 2000	50 % of population. In Turkmenistan health insurance is not obligatory; in Georgia – marginal
Health sector organization: 1. introduction of GP function and deterioration of polyclinics 2. introduction of specialist care, nursery and palliative care centres 3. introduction of public health institutions	1. Dominant in CEE countries, still not introduced in most of CIS countries 2. Polyclinics that include nursery care still operate in CIS countries 3. Public health activities concentrate on sanitary and epidemiological inspection and organization of public health centres	In rural areas of CIS countries primary care is still based on feldsher-obstetrical points.
Ownership privatisation: 1. private primary care and specialist care units 2. private hospital units 3. private rehabilitation units 4. private units and services in nursery and palliative care	1. Dominant in CEE countries and rising share in CIS countries 2. Marginal role 3. Dynamic increasing tendency 4. New organizational units, mostly private	The biggest share of private health care financing is in Georgia.
Privatisation of funding: 1. Complementary and supplementary health insurance 2. Substitutive health insurance 3. Co-payment in public system	1. Russian Federation (1991), Hungary (1993), Azerbaijan, Baltic countries, Ukraine (1996), Bulgaria (1999) 2. Do not operate 3. Official co-payments are in: Russian Federation, Azerbaijan, Kyrgystan, Estonia, Latvia, Bulgaria and Slovakia	Share of complementary and supplementary insurance is small – up to 1% of total expenditure
Decentralization/centralization 1. decentralization of ownership functions 2. network of hospitals within the country 3. decentralization of financing mechanisms	1. In every country 2. Hungary, Bulgaria, Slovakia 3. Rare, after decentralization at the beginning of reforms, centralization processes are in place	Countrywide network of hospitals is introduced via legal regulations.
Management reorganization: 1. introduction of health manager professionals 2. introduction of information system on services and costs 3. preparation of economic analysis and projections	Most advanced are Hungary and Baltic countries.	Process of management reorganization is very slow; depends on level of funding and capacity building as well.

Direction of reforms	Countries and trends	Additional notes, atypical findings
4. introduction of patients' satisfaction analysis and their use in management process		
Evolution of health care units financing mechanisms: <ol style="list-style-type: none"> 1. in primary care from fee for service to capitation 2. in hospital care from payment per bed/day to DRG 	<ol style="list-style-type: none"> 1. In CEE countries capitation dominated, while in CIS countries global budget dominates 2. Evolution is from payment per bed/day and global budget to some kind of DRG (it is in process of implementation in Hungary, Bulgaria and Slovakia) 	Further changes in financing mechanism are depended from capacity building

Source: own compilation

An overriding issue related to the functioning of the sector that emerged in the majority of transition countries is concerned with the continued privatisation of financing health care. Privatisation occurred to the greatest extent in poorer CIS countries, which restricted access to health care of less well-to-do portions of the population and whose health status is poorer anyway. This is also due to both old and new infectious diseases, whose incidence is much higher than in the Western world. At the same time, the system of health care facilities inherited from the former system were not equipped to face these new challenges. Extremely low public funding levels prevented it from adjusting to changing circumstances and caused its serious decline.

The implementation of organisational, financing and management reforms in the health care of CIS countries geared towards solutions adopted unchanged from various Western systems (Bismarckian health insurance, UK's General Practice, territorial decentralisation) to date, have failed to deliver the expected results. Partial withdrawals from changes already implemented and centralisation of management occurs in the context of developing private health services. This occurs in a context of intensifying health needs of the populations of these countries, which find themselves in a health crisis that stems from the overlapping of various phases of epidemiological development. Therefore, health politicians sometimes propose that at the moment, poor CIS countries find themselves in a particular need of investment in accessibility of health services and public health activities in order to overcome the health crisis and to use foreign assistance in this way. Radical market reforms are less needed, in their opinion. *Foreign assistance to the region (south Caucasus) must focus not only on the reform but also on funding essential services and should no longer advocate market mechanism in the healthcare system* (Schoen-Angerer 2007, p. 565).

The implementation of health sector reforms in CEE have been more successful, although this region is also plagued by low performance of the sector, lack of financial balance and restricted access to health services. The higher quality of life in CEE countries contributes to an improved health status of the population, which can be observed in several of them, yet, disparities between the indicators in CEE and old EU member states are still significant. These countries joined the EU and will be subject to EU health policy, which should markedly change the conditions of operation in the health sector.

Nevertheless, in those countries there are epidemiological challenges to which no satisfactory responses have been proposed by health policy and system-wide solutions. For example, the epidemiological crisis in Estonia (high incidence of HIV/AIDS and very high mortality for external causes) is accompanied by the implementation of market-oriented solutions to the sector and limitations in its resources, which, in consequence, reduces access to the needed infrastructure, both in terms of treatment and combating diseases that predominate there. On the other hand, in Bulgaria, foreign aid and nationwide policies are predominantly geared towards fighting HIV/AIDS and privatisation reforms, even though the most pressing health and social problem there is the neglect in mother and child care in the context of one of the lowest shares of children in its populace (cf. Graph 2).

Health sector reforms in post-communist countries insufficiently responded to their epidemiological and social situations (social differences and, in some countries, a lowered standard of life) were conducted in the context of gross under-financing of the sector, limited organisational and management competencies, as well as inadequate awareness of the consequences of the market-oriented nature of the sector for the accessibility of health services given severe budget constraints.

Therefore, the process of further reform of the health care sector in the countries surveyed requires a significant change of approach, namely the cessation of search for 'great ideas' that would encourage effective operation of the health sector should be replaced with hard work aimed at improving the management of the sector and within the sector²⁷. Such improved management, taking into account health and economic criteria, requires the cooperation of medical professionals, economists and specialists in other fields. In transition

²⁷ There are many voices calling for quick (if not immediate) reforms, which are supported by various stakeholders with their own benefits in mind, and yet are supposed to end in overall improvement. Thus, it is suggested that the system should be divided into two parts: for the more and the less affluent, on the basis of alternative, private insurance (opt-out insurance), e.g. in Russia and in Poland, or through the introduction of supplementary insurance in order to avoid waiting lists, which in fact fosters discrimination against the less affluent. When Russia proposed to introduce alternative, voluntary (private) opt-out insurance, the World Bank responded with the arguments based on rather negative experience of Latin American countries (World Bank 2003.) By the same token, in Poland there are voices (e.g. during the debate at the 2004 RSSG meeting) advocating that people with higher income, who at any rate use private market medical services, should be excluded from mandatory health insurance. Currently, those people pay twice: they cover mandatory insurance contribution and pay out-of-pocket for the provision of private medical services.

countries, health system management still remains in the hands of medical professionals, whose cooperation with other specialists tends to be problematic, as is their acceptance of actions and policies that differ from their own (not always overtly medical). Hence, what is needed is a better preparation of staff and institutions to meet the challenge of investing in the training of human resources, in the development of modern skills and up-to-date qualifications, followed by better remuneration.

A particular problem for transition countries is the low priority afforded to health care matters. Economic and political problems prevail against the background of fighting for power, which during such radical changes appears to be understandable, but socially is hard to bear. What is needed is a louder voice to stand up for health, which is rather difficult at the moment. International support in this respect is modest. This side tends to opine that the health care sector will absorb all the resources made available to it, moreover, the power of interests represented within the field is such that it distorts genuine health problems. Those who demand priority for health with a special focus on public health (e.g. Nolte et al. 2004) tend to be few and far between in the context of demographic and health problems of this region, furthermore, they go almost unheard at the national level.

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