

# Ten Years of Health Reforms in Former Socialist Economies: Lessons Learned and Options for the Future

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### List of Acronyms and Abbreviation

CIS = Commonwealth of Independent States  
 CEE<sup>2</sup> = Central and Eastern Europe  
 ECA = East Europe and Central Asia  
 FSE = CEE+FSU= former socialist economies  
 FSU = Former Soviet Union<sup>3</sup>  
 GP = General Practitioner  
 HA = Health Authorities  
 OOP = out-of-pocket payments

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<sup>2</sup> It includes Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Hungary, Macedonia, Poland, Romania, Slovak Republic, Slovenia, Yugoslavia, F.R..

<sup>3</sup> It includes Moldova, Latvia, Lithuania, Estonia, Russian Federation, Azerbaijan, Georgia, Armenia, Ukraine, Belarus, Kazakhstan, Kyrgyz Republic, Uzbekistan, Tajikistan, Turkmenistan.

## INTRODUCTION

This essay presents a study and an assessment of health reforms in former socialist countries of Central and Eastern Europe (CEE) and the Former Soviet Union (FSU or CIS), hereafter former socialist economies (FSE). In the first part, it provides a synthetic picture of the health systems inherited from the communist regimes, and it presents the macro variations in health status, public health expenditure, private funding, etc...that occurred over the transition years. This first part draws together evidence from several studies and it is intended to provide an information basis for the subsequent analysis of the health reforms. In the second part, the paper critically assesses the main health reforms implemented over the last decade in several FSE. Finally, it illustrates a few suggestions to move ahead in the reform process on the basis of the lessons learned.

### **1. WHAT IS THE PRESENT POSITION OF FORMER SOCIALIST COUNTRIES ON HEALTH AND HOW DID IT EVOLVE?**

#### ***1.1 Health Threats and Health Status***

Under the communist regimes imposed everywhere after 1945 in Central-Eastern Europe and in the Soviet Union health care was declared a public responsibility. By the mid '70s the goal of universal access to care with broad coverage in terms of services was largely achieved by most socialist countries in the region. Their health systems also provided strong public health measures, such as compulsory childhood immunization, which helped them to achieve better health outcomes than other countries with similar levels of income<sup>4</sup>. By the mid-1960s life expectancy at birth in socialist countries was comparable to that in the West.

However, beginning in the second half of the 70s aggregate health status indicators showed no further improvement and adult health indicators in fact started to worsen. Such stagnation and deterioration continued in the '80s, and in some of the countries in the region accelerated over the transition years, with the more well-known and dramatic example involving male life expectancy in the Russian Federation (see Box 1.1). Largely because of increased deaths from cardio-vascular disease<sup>5</sup> and

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<sup>4</sup> Poland for example, during the period following WWII achieved the best results in term of reduction of infant mortality rates (IMRs went down to 40 per 1000 in the '60s from 110 per 1000 in the '50s (Zatonsky, 1996, "Evolution of health in Poland since 1988").

<sup>5</sup> Standard death rates for circulatory disease among Russian men rose from 658 per 100,000 in 1991 to 837 per 100,000 in 1995. Among men, the standard death rate from CVD in Russia is higher than the death rate in

external causes among middle-aged men (mainly deadly injuries, including murder and suicide, and alcohol self-poisoning), male life expectancy at birth in Russia declined 7.4 years (from 64.9 to 57.5 years) between 1987 and 1994—an extraordinary change<sup>6</sup>. The Russian Federation case, although particularly striking, is paradigmatic of a trend shared by all the countries in the FSU (which became Community of Independent States, or CIS, after the collapse of the union in 1991). In Georgia, for example, maternal mortality rates increased by approximately 45% between 1990 and 1997; deaths caused by cardiovascular disease increased by 35% and the overall age-adjusted mortality rate increased by 18%<sup>7</sup>.

On the contrary, over the last decade some of the Central and Eastern European (CEE) countries were able to reverse the previous trends and to achieve significant improvements in life expectancy. The improvements in life expectancy were particularly strong in Slovenia, Czech Republic, Slovak Republic and Poland. In Poland, in the first two years of the transition up to 1991, mortality rates continued to worsen, especially due to externally caused deaths that rose by 25% from '89 to '91. Then, there was a sharp as well as unexpected improvement, and from 1991 to 1994 the overall mortality rate decreased from 1,062 to 971 per 100,000 for men and from 550 to 519 per 100,000 for women<sup>8</sup>. The starkest phenomenon was the decrease in deaths from cardiovascular disease, which fell by 25%, in the 20-44 age group, and by 15% in the 45-64 age group. Over the same years comparable positive trends were observed in the Czech and the Slovak Republics<sup>9</sup>.

In other countries of CEE, instead, over the decade health indicators continued to deteriorate, although the setback in health indicators was not as sharp as in the FSU. A negative trend was observed not only in all the war-stricken states of the Balkan region, but also in fast growing Hungary (see table 1).

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the U.S. for all causes combined (Eberstadt, 1999).

<sup>6</sup> Between 1987 and 1994, Russia experienced a 250% increase in adult male (age cohort 25-44) age-specific-death rates (ASDRs), and a 200% increase in adolescent and adult female (age cohort 15-44) ASDRs (Shkolnikov, 1997).

<sup>7</sup> See Georgia Public Expenditure review, World Bank, 2002.

<sup>8</sup> Zatonsky, 1996, "Evolution of health in Poland since 1988".

<sup>9</sup> Albrecht, V., Drbal, C., Zdravotnictví v ČR: krize nebo úspěch? *Zdravotnictví v České republice*, 3/1998, s.10-13

**Box 1.1: Life expectancy in the Russian Federation**

Recent evidence shows that, between 1985 and 1987, Russian life expectancy increased from just below 68 years to 70 years (McKee and Leon, 1997). Then it reversed, plunging to 64 by 1994 (and to 57.5 for men), before rising slightly in 1995. The improvements after 1984 reflected reduced deaths from many causes, notably accidents and violence, alcohol-related causes, heart disease, and pneumonia. The improvements were concentrated among young and middle-aged adults, especially those aged 40-44 years. The subsequent plunge involved a reversal of all these trends. The worst years were 1992-1994, when men lost 4.5 years of life expectancy. An official Russian report in 1997 by an expert panel of demographers addressed this unprecedented increase in mortality in the Russian Federation (Pres. Comm. on Problems of Women, Family, and Demography, 1997, *The Current Mortality Situation of the Population of Russia*). It presented the following bleak picture of health status in the Federation: Russian men live 15-17 years less, and women 7-10 years less than their Western counterparts. 82% of the recorded increase in mortality reflects a real increase in age-specific death rates, while only 18% can be attributed to age-structure effects. The subsequent decline in the number of deaths between 1995 and 1997 was largely due to effects of age structure and did not represent a real decline in death rates. In 1997 life expectancy in the Russian Federation was roughly equal to 66.5 years.

Throughout the FSE the leading cause of death has been from cardio-vascular disease<sup>10</sup>. In the worst cases, such as in Hungary, age standardized death rates (SDRs) due to circulatory disease and ischaemic heart disease among men are nearly double those of the United States. Cancer—particularly lung cancer—and injuries are also unusually common among adult males. Ischaemic heart disease, cerebrovascular disease and lung cancer together explain a third of the total number of years lost in the European region of the FSU<sup>11</sup>. Another leading cause of death has been from external causes, mainly injuries and self-poisoning. On the contrary, in the Central Asian region communicable diseases (mainly respiratory infections and TB), perinatal and maternal causes are still responsible for approximately half of the total burden of disease<sup>12</sup>.

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<sup>10</sup> According to Murray and Lopez (1997) cardiovascular disease is responsible for 26.2 of the total number of DALYs lost in former socialist economies.

<sup>11</sup> Bobadilla and Costello, 1997.

<sup>12</sup> Bobadilla and Murray, 1997, estimate on the basis of 1990 data that communicable disease and maternal and child deaths constituted 53% of total burden of disease in Central Asia. Such share does not seem to have significantly varied over the transition.

**Table 1. Aggregate health status indicators for a selected group of FSE<sup>13</sup>**

	Male life expectancy			Female life expectancy			Infant mortality rate		
	1990	1993	1997	1990	1993	1997	1990	1993	1997
<b>Albania</b>	69	69	70	75	74	75	31	33	27
<b>Azerbaijan</b>	67	65	67	75	74	75	23	28	23
<b>Croatia</b>	69	68	68	76	77	77	11	10	9
<b>Czech Rep.</b>	68	69	71	76	76	78	11	9	6
<b>Estonia</b>	64	62	64	75	74	76	12	16	10
<b>Georgia</b>	69		69	76		77	16	22	22
<b>Hungary</b>	65	65	66	74	74	75	15	13	10
<b>Kazakhstan</b>	64	62	60	73	72	71	26	28	24
<b>Kyrgyz R.</b>	64	63	63	73	71	71	30	33	28
<b>Latvia</b>	64	62	64	75	74	75	14	16	15
<b>Moldova</b>	65	64	63	72	71	71	19	22	20
<b>Poland</b>	67	67	69	76	76	77	16	16	11
<b>Romania</b>	67	66	65	73	73	74	27	23	22
<b>Russian Fed.</b>	64	59	60	74	72	72	17	20	18
<b>Slovak Rep.</b>	67	68	69	76	77	77	13	11	9
<b>Slovenia</b>	69	70	71	77	77	78	8	7	5

*Sources:* Jakab, Preker and Shneider (2001); Kornai (2000) and Shkolnikov (1997); WDI 2002.

Note that women continue to fare better than men in terms of absolute levels of mortality and morbidity: in 1990, women accounted for 52% of the population, but only for 43% of the estimated DALYs<sup>14</sup> lost. However, of particular concern is the sharp increase in female lung cancer mortality, which demonstrates the very real threat to women's health posed by smoking—a threat that is expected to worsen as the tobacco industry continues its efforts to expand its market through targeting of women and young people. In the '80s and '90s death rates from cervical and breast cancer also continued to rise, and the dearth of screening services and prevention programs for cervical and breast

<sup>13</sup> It has not been possible to check the reliability of the primary source.

<sup>14</sup> Disability Adjusted Life Years, first used by the World Bank in 1992 (WDR, 1993), is a measure that takes into account not only mortality but also morbidity.

cancer around the region is a serious matter of concern. As concerns breast cancer, for example, WHO estimates that 30-40 percent of cases in Estonia, and almost 2/3 in Poland are still detected at more advanced, and more difficult to treat, stages. Other countries, for which official figures are not available, are likely to perform even worse at early cancer detection. Furthermore, the state of reproductive health services remains appalling, with a few positive exceptions among CEE countries such as the Czech Republic and Slovenia<sup>15</sup>. In most countries of the region access to modern contraceptive products and accurate information regarding family planning alternatives is privy to a small minority of the population<sup>16</sup> and abortion remains the dominant method of fertility control. Contraceptive prevalence rates in women aged 15-49 are 34% in the Russian Federation and 48% in Romania. By comparison, in Thailand, a country at a similar level of economic development, it is equal to 74% (World Bank, 2002). It is estimated that on average a woman living in the Former Soviet Union undergoes over 3 abortions during her fertile life (for instance, in Georgia the estimate is equal to 3,7<sup>17</sup>). The rate of abortions to live births is more than one for the majority of FSE. The largest ratio is in Azerbaijan, with official data showing 2,199 abortions for 1,000 live births (1995 data)<sup>18</sup>.

As for infant mortality, during the transition years the trend has been negative in several countries of the FSU, whilst has been stagnant or positive in CEE countries. In some of the FSU countries the relatively good performance according to official figures (see table 1, based on vital registration data) is not confirmed by survey-based evidence. In the Caucasus and in the Central Asia Republics, for instance, over the decade the cases of undefined diarrhea diseases, meningitis, infectious

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<sup>15</sup> As regards maternal mortality, over the transition years it does not seem to have grown significantly, and the best performing countries have managed to reduce it. Maternal mortality averages 41 deaths per 100,000 live births in the FSU countries, and 21 per 100,000 in Central and East Europe. The range of variation, however, is quite broad; it extends from 17 per 100,000 in Lithuania, to 50, 65 and 70 per 100,000 in Russia, Kyrgyz Republic and Kazakhstan respectively, up to 96 per 100,000 in Tajikistan (1995 data). Within Central and East Europe, Romania continues to perform worse than any other country, with 41 deaths per 100,000, while estimates for Bulgaria, Hungary and the Czech Republic are respectively 15, 12, and 9 respectively. Finally, a rising concern is posed by female death rates from cardiovascular disease that remain significantly higher than rates in the European Union (in Central and East Europe 86.3 per 100,000 and in the FSU 98 per 100,000, as opposed to 33.1 per 100,000 in the EU).

<sup>16</sup> Major causes preventing a more widespread use of contraceptives are: 1. recurrent interruptions in the flow of supplies; 2. physicians' resistance to encouraging the use of modern contraceptive methods; 3. persistence of deep-rooted cultural and social taboos against the use of modern contraceptives.

<sup>17</sup> UNICEF, 1993, Georgian Women's Health Profile.

<sup>18</sup> Even those FSU countries where rates of abortion were lower have witnessed a sharp increase in the number of abortions over the last decade. In Armenia, the rate of reported abortions climbed from 316 in 1990 to 627 per 1,000 live births in 1995.

mononucleosis, rubella and influenza sharply increased. Thus, one would expect that also infant mortality rates deteriorated and not that they improved, as the official figures show in some of the countries. On average in the FSU infant mortality is equal to approximately 20 deaths per 1,000 children, a value almost four times higher than in the industrialized countries. Moreover, the aggregate country data mask wide variations across socioeconomic groups and geographic areas within countries. For instance, in the Kyrgyz Republic according to a Demographic and Health Survey conducted in 1997 (World Bank 2002) infant mortality was equal to 46 per 1,000 in the richest wealth quintile, and 83 per 1,000 in the poorest quintile.

In addition, within the region dormant threats from communicable diseases that affect mainly the adult population re-emerged. In the FSU, and particularly in the Central Asian republics, in Moldova and in the Caucasus, the incidence rates of tuberculosis, diphtheria, and sexually transmitted diseases rose to many times their prior levels<sup>19</sup>. In Russia, the TB case notification rate has doubled between 1991 and 1997, reaching 123/100,000 in 1999 (World Bank, 2002)<sup>20</sup>. Particularly worrying is the situation among Russian prisoners<sup>21</sup>. HIV infection has also increased sharply over the last few years (420,000 reported cases in 1999, according to UNAIDS, 2000), especially among injecting drug users. Syphilis incidence is estimated to have increased up to 50-fold in the last 10 years<sup>22</sup>.

### ***1.2 Epidemiological studies on the causes of the deterioration in health status***

According to the existing epidemiological studies on mortality and morbidity the growth in premature death from non-communicable diseases, observed in most FSE countries, is largely due to lifestyle factors, such as alcohol and tobacco consumption, diet, stress and lack of exercise. A global study<sup>23</sup> of risk factors associated with premature loss of years of healthy life (measured by DALYs) found that in 1990 in the FSE tobacco accounted for 12.5 percent of all DALYs lost, and alcohol accounted for a

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<sup>19</sup> The figures reported in the text are likely to be underestimates of the true incidence rates, as several cases of TB and STD are not reported.

<sup>20</sup> The TB mortality rate in 1996 was 17/100,000 (in the US is 0.61/100,000). So, a Russian is on average 28 times more likely to die of tuberculosis than an American.

<sup>21</sup> TB is concentrated among marginalize groups. It is the major killer among Russian detainees, most of which await due process for several years. 700 per 100,000 citizens are currently in jail in Russia, five times more than in Europe (Farmer, P., 1999).

<sup>22</sup> Russian Federation AIDS & TB Project Concept documents (1999).

<sup>23</sup> Murray, C. and A. Lopez, 1997.

further 8.3 percent. The third risk factor in order of importance was hypertension (5.9 percent), which is also aggravated by the first two. According to this study the first two risk factors, tobacco and alcohol consumption, together had a larger impact than the eight next most important risk factors combined. These results are confirmed by a 1997 WHO study, according to which middle-aged men in FSE are twice as likely than those in Western Europe to die from tobacco-related causes. In 1995 tobacco caused an estimated 41 percent of all deaths among men aged 35-69 years<sup>24</sup>.

Several studies suggest that the second risk factor in order of importance is alcohol consumption. For the Russian Federation, Shkolnikov and Nemtsov (1997), and Trems (1997) present the results of a number of studies on the effects of alcohol consumption on the burden of disease. Shkolnikov and Nemtsov (1997) attribute the oscillating patterns of accidental poisoning<sup>25</sup> and accidents in the second half of the '80s primarily to sharp fluctuations in the availability and consumption of alcohol (both licit and illicit), during and after Mikhail Gorbachev's 1985-87 campaign to reduce its availability (1985-1987). On the contrary, Treml (1997) argues that the effects of Gorbachev's anti-alcohol campaign have been largely overstated. He suggests that the campaign encouraged illegal distillation and therefore resulted in even worse health outcomes, due to the poor quality of the vodka illegally produced. This could explain the fact that the two years 1985-1987 marked a significant health improvement for the well educated segments of the population, but worsening health outcomes for the lower socio-economic groups (Shkolnikov, 1997). The lack of reliable data for this period makes it impossible to reach definitive conclusions.

The level of alcohol consumption has continued to increase over the '90s, and it has now reached astonishing levels in several FSE countries. According to a 1993 national household survey, over 80 percent of Russian men were drinkers and their alcohol consumption averaged nearly 600 grams per day, roughly equivalent to five bottles of vodka per week, every week (Eberstadt, 1999). For the Russian population as a whole, average alcohol intake is approximately 400 grams per day. Alcoholism is likely to pose an immense burden on society, and the number of preventable deaths directly ascribed to alcohol consumption to represent just the top of the iceberg of such burden.

Poor nutrition seems to be another important, yet still neglected, factor in explaining the deterioration in health status over the last few years. Under-nutrition and micronutrient malnutrition<sup>26</sup> particularly

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<sup>24</sup> WHO, Regional Office for Europe, Fact sheet No 156, May 1997

<sup>25</sup> Most cases of self-poisoning occur as a result of excessive vodka consumption in a short period of time.

<sup>26</sup> Under-nutrition is defined as the inadequacy of food intake to meet a person's energy and nutrient needs for healthy functioning. Micronutrient malnutrition is defined as the insufficiency of essential vitamins and

affect the poorer and more vulnerable segments of the population, and the poorer countries, such as those in the Central Asia region (see World Bank, 2000). Moreover, in FSE diets have traditionally exhibited iron and iodine deficiencies<sup>27</sup> and by the problem of non-availability and non-affordability of vitamin-rich eatables in the countries characterized by a colder climate. In a few countries of CEE and among the wealthier segments of the population the opposite problem of over-nutrition has also worsened over the transition years<sup>28</sup>.

### ***1.3 Health Spending and Sources of Funding***

Four questions about the evolution of health spending over the last decade of particular interest are:

1. How total public health spending varied across countries;
2. How much of the spending on health was public and how it was financed. For the share funded through social insurance contributions, how well revenues matched planned health spending;
3. How much of the spending on health was financed through private out-of-pocket payments, including private informal payments, or voluntary insurance;
4. How the incidence of this spending varied across different socio-economic groups and how severe was the financial barrier to access health services.

Reliable data on these questions are less adequate than it would be desirable. For most FSE, reliable data are now available for total public health expenditures but not for total private health expenditure, not for the informal component in any case. The latter can only be estimated through household surveys.

Looking first at public health expenditure and its relationship with the evolution of income and fiscal revenues, one can see that socialist countries started from similar levels of spending in proportion to their gross domestic product (GDP), and then tended to diverge over time. In fact, it is possible to distinguish between two periods and two groups of countries.

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minerals in what may be an otherwise healthy diet.

<sup>27</sup> Those could easily be addressed by fortifying salt with iodine and wheat flour with iron, as is done in many other countries. Goiter, a disease stemming from iodine deficiency disorder, prevalence rates of up to 25% have been reported in Bosnia, up to 40% in parts of Russia, and up to 75-80% in parts of the Caucasus and Central Asia regions. Iodine deficiency causes impairment of cognitive capabilities, with severe long term effects.

<sup>28</sup> Over-nutrition is defined as an excessive intake of calories relative to energy requirements and as an unbalanced intake of other nutrients (generally excess fat and insufficient fiber intake).

**Table 2: GDP growth for a selected group of FSE (annual real %)**

	1990	1991	1992	1993	1994	1995	1996	1997	1998	
Albania		-27.7	-7.2	9.6	9.4	8.9	9.1	-7.0	8.0	
Armenia	.	-11.7	-41.8	-8.8	5.4	6.9	5.9	3.3	7.2	
Azerbaijan		-11.7	-0.7	-35.2	-11.8	-24.3	-11.8	1.3	5.8	10.0
Belarus		-2.2	-1.2	-9.6	-7.6	-12.6	-10.4	2.8	10.4	8.3
Bulgaria		-9.1	-8.4	-7.3	-1.5	1.8	2.9	-10.1	-7.0	3.5
Croatia	.		-11.7	-8.0	5.9	4.8	5.9	6.8	2.5	
Czech Republic		-1.2	-11.6	-4.5	0.1	2.2	5.9	3.8	0.3	-2.3
Estonia		-7.1	-8.0	-21.2	-8.5	-1.8	4.3	3.9	10.6	4.0
Georgia		-14.8	-20.1	-40.3	-39.4	-11.4	2.4	10.5	11.0	2.9
Hungary		-3.5	-11.9	-3.1	-0.6	2.9	1.5	1.3	4.6	5.1
Kazakhstan		-4.6	-6.8	-13.0	-9.6	-12.6	-8.2	0.5	1.7	-1.9
Kyrgyz Republic		6.9	-9.1	-15.8	-16.3	-20.1	-5.4	7.1	9.9	3.6
Latvia		-1.3	-10.4	-34.9	-14.9	0.6	-0.8	3.3	8.6	3.6
Lithuania		9.5	-5.7	-21.3	-16.2	-9.8	3.3	4.7	7.3	5.1
Moldova			-16.0	-29.1	-1.2	-31.2	-1.4	-7.8	1.3	-8.6
Poland		-9.9	-5.5	3.1	4.3	5.1	7.0	6.0	6.8	4.8
Romania		-5.7	-12.9	-8.8	1.5	3.9	7.1	3.9	-6.6	-7.5
Russian Federation		-3.0	-5.0	-14.5	-8.7	-12.6	-4.1	-3.4	0.9	-4.6
Slovak Republic		-2.7	-14.6	-6.7	-3.7	4.9	6.9	6.6	6.5	4.4
Slovenia	.			2.8	5.3	4.1	3.5	4.6	3.9	
Tajikistan		-2.4	-8.7	-29.0	-11.3	-19.0	-11.8	-4.4	2.3	8.2
Ukraine		-6.4	-8.7	-9.9	-14.2	-22.9	-12.2	-10.0	-6.0	-1.7

*Source:* World Development Indicators 2000.

In the first years of the transition, as table 2 shows, almost all FSE experienced severe economic recessions. In most countries of the region, the weakness of the new democratic institutions<sup>29</sup> compounded the economic difficulties in blighting the governments' revenue collection and spending

<sup>29</sup> Under the socialist regimes, the problem of securing enough funds to finance public goods and welfare state services was framed under a totally different institutional setting. For example, personal taxation was largely irrelevant as the state put most of the burden of financing social services directly on enterprises.

capacity. In some countries of the FSU the extent of the collapse in income and in fiscal revenues was enormous, in the order of 50, 60 per cent.

As a result of the economic difficulties, all FSE had to cut real public spending for health, and they did so roughly in proportion with the GDP decline, as shown in Table 3. The exceptions are a few countries that experienced war during this period (for example, Georgia), where public spending on health essentially collapsed along with the government's revenue base, and, on the opposite side of the spectrum, a few countries in Central Europe (such as the Czech Republic) where health spending could be protected even in the early transition period. In general, governments reduced planned spending, but also ran deficits, and payment arrears began accumulating in the system. Reductions were sharp in wage and capital investment expenditures; increasingly, out-of-pocket payments substituted for public funds particularly for drug expenditure and for wages. Physicians tried to make up for the reductions of their official salary payments by offering their services for private payment, typically doing so from the public facilities in which they had previously been employed.

**Table 3: Health expenditure, public (% of GDP) for a selected group of FSE**

Country Name	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Albania	3.3	4.4	3.0	2.7	2.5	2.5	2.6	2.7	2.5	2.0
Armenia	2.8	4.1	4.9	3.6	1.5	2.7	3.4	3.2	3.4	4.0
Azerbaijan	2.6	3.1	2.3	3.0	1.6	1.1	1.2	1.0	1.0	1.0
Belarus	2.6	3.1	3.4	4.7	5.2	5.3	5.1	4.9	4.6	
Bulgaria	4.1	4.2	5.3	4.8	4.0	3.6	3.1	3.4	3.5	3.9
Croatia	9.7	10.8	9.9	9.3	8.5	8.4	9.3	8.7	9.0	9.5
Czech Rep.	5.2	5.1	5.1	6.9	7.1	6.9	6.6	6.5	6.4	6.6
Estonia	2.1	7.5	5.3	5.2	5.8	5.8	5.2	4.6	5.1	5.1
Georgia	3.0	4.1	2.4	0.4	0.3	0.6	0.9	0.7	0.7	0.8
Hungary	5.7	6.6	6.6	4.8	5.2	4.9	4.7	4.5	4.7	5.2
Kazakhstan	3.2	4.3	2.1	2.3	2.2	3.0	2.5	2.3	2.4	2.7
Kyrgyz Rep.	4.2	3.6	3.2	2.6	3.5	3.5	3.1	2.9	2.7	2.2
Latvia	2.5	2.6	2.8	4.1	3.6	4.4	4.0	3.5	3.9	4.0
Lithuania	3.1	5.2	3.8	3.9	4.8	5.1	6.1	5.0	6.2	4.8
Moldova	4.4	4.0	3.8	4.4	6.2	5.8	6.2	4.8	3.6	2.9
Poland	4.7	4.8	4.9	4.5	4.1	4.2	4.6	4.8	4.2	4.7
Romania	2.8	3.3	3.6	3.0	3.3	3.6	2.9	3.1	3.4	3.8
Russian Fed.	2.5	2.4	2.5	3.3	5.2	4.4	4.1	4.5	4.5	4.6
Slovak Rep.	5.0	4.6	4.6	5.8	6.3	6.1	5.8	5.8	5.7	5.7
Slovenia		5.2	7.3	7.7	7.7	7.1	6.6	6.6	6.8	6.7
Ukraine	3.0	3.3	3.5	4.1	5.4	4.9	3.9	4.1	3.5	2.9

*Source:* World Development Indicators 2000-2001

In subsequent years, in order to respond to the general budget shortfalls and to inject additional resources in the health system, several FSE created or increased the rate of a payroll tax earmarked to fund health services. The burden of the tax was shared by employers and employees, while the central or local governments were supposed to contribute either for the non-contributing population<sup>30</sup>, as in

<sup>30</sup> In Poland, for example, social insurance contributions are waived for 'very poor' farmers, people in receipt of unemployment and welfare benefits, serving soldiers and army veterans. The state also provides free medical treatment to children of up to seven years of age, pregnant women, the mentally ill, accident victims and regular blood-donors. In addition, free treatment is provided for alcoholism, drug dependence, psychiatric illness and communicable diseases, such as tuberculosis and AIDS.

Russia or Hungary, or for specific services, as in Georgia. In most of the Former Soviet Union the tax was kept at a relatively smaller rate<sup>31</sup> (Russian Fed., 3.6%; Kazakhstan, 3.25%, Georgia, 4%; Kyrgyz Republic, 2.5%), whilst in most CEE countries and the Baltic states the payroll tax rate was set at a much higher level (Croatia, 18%; Hungary, 18%; Czech Rep., 13.5%; Slovak Rep., 13.75%; Estonia, 13%, Poland, 7.75%, Romania, 14%). In the latter group of countries the payroll tax became the major source of funding for the public health sector.

Beginning in 1993-94, most countries in the region started to experience some economic recovery. Then, a divergent pattern of evolution between most CEE and FSU countries emerged. While the majority of CEE countries were able to move towards a path of stable economic growth, the Community of Independent States that formed after the collapse of the Soviet Union (with the partial exception of the Baltic States) were soon trapped in another period of economic turbulence<sup>32</sup> in 1997-98, which terminated only in 2000/01. The main reasons mentioned in the literature to explain the different economic evolution followed by the two groups of countries during the transition years concern the extent of corruption and the way the privatization process was carried out, the absence of rule of law in the FSU countries, and the geographical distance from European Union markets.

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<sup>31</sup> To compute the overall tax burden and tax wedge on wages, however, the health contribution earmarked for health has to be summed to the contribution for pensions, sickness and unemployment benefits. Overall, the payroll tax rate is in the range 25-40%.

<sup>32</sup> The crisis began in 1998, when the East Asia financial crisis spread to Russia. In August the government announced a default on its public debt obligations. This crisis initiated a new period of economic recession in all countries of the FSU.

**Table 4: Comparison of gross domestic product: at the beginning and at the end of the decade (\$ millions<sup>33</sup>) and average annual % growth for a selected group of FSE**

	GDP 1990	GDP 2000	Average annual real % growth
Georgia	12,171	3,029	-13.0
Moldova	10,567	1,286	-9.7
Ukraine	91,327	31,791	-9.3
Azerbaijan	9,837	5,267	-6.3
Russian Fed.	579,068	251,106	-4.8
Kazakhstan	40,304	18,230	-4.1
Kyrgyz Rep.	2,951	1,304	-4.1
Latvia	12,490	7,150	-3.4
Lithuania	13,254	11,314	-3.1
Bulgaria	20,726	11,995	-2.1
Armenia	4,124	1,914	-1.9
Belarus	35,203	29,950	-1.6
Romania	38,299	36,719	-0.7
Estonia	6,760	4,969	-0.5
Croatia	18,156	19,031	0.6
Czech Rep.	34,880	50,777	0.9
Hungary	33,056	45,633	1.5
Slovak Rep.	15,485	19,121	2.1
Slovenia	12,673	18,129	2.7
Albania	2,102	3,752	3.3
Poland	58,976	157,739	4.6

*Source:* World Development Indicators, 2002

The economic and fiscal situation has severely constrained governments' spending capacity on health. Table 5 presents the total private and public health expenditures in several countries of the region at the end of the decade.

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<sup>33</sup> GDP is computed at purchaser prices. Conversion in U.S. dollar is done by applying the average official exchange rate reported by the International Monetary Fund for the year shown.

**Table 5: Per capita GDP and health expenditure in year 2000 (US \$) for a selected group of FSE**

	Per capita GDP	Total	Public	Private	Private/Total (%)
Albania	1,112	30	22	8	25.9
Armenia	503	45	18	27	60.3
Azerbaijan	660	10	7	3	32.5
Belarus	2,985	168	137	30	18.1
Bulgaria	1,461	60	57	3	5.7
Croatia	4,263	484	405	79	16.4
Czech Republic	4,940	356	326	30	8.5
Estonia	3,445	211	176	35	16.6
Georgia	556	16	4	12	73
Hungary	4,532	308	236	72	23.5
Kazakhstan	1,221	69	33	36	51.9
Kyrgyz Republic	268	12	6	6	50.5
Latvia	2,941	191	118	73	38.3
Lithuania	3,059	190	144	46	24.2
Macedonia, FYR	1,768	111	94	17	15.4
Moldova	300	18	9	9	50.7
Poland	4,081	255	192	64	24.9
Romania	1,635	92	62	30	32.6
Russian federation	1,718	109	79	30	27.8
Slovak Republic	3,544	256	202	54	21.2
Slovenia	9,131	706	621	85	12
Ukraine	636	28	18	9	33.3
Uzbekistan	314	15	11	5	30.6

*Source:* Own computations based on World Development Indicators, 2002.

As the table shows, in a few FSU countries the amount of health expenditure has been reduced to negligible levels, insufficient to maintain even basic public health services, while in others it seems to be adequate and proportionate to the existing level of economic development. Note that all the countries<sup>34</sup> that increased level of real public spending over the decade belong to the Central and East European region or to the Baltic. The “best” performer is Estonia, which increased public health expenditure by over fifty percent in real terms in a period when income fell by 25%.

<sup>34</sup> Belarus, not shown in the Table, is the only exception. Belarus has increased real public health spending by 132% over the period 1990-1997. Belarus has not yet undertaken the transition to a market economy.

#### ***1.4 Access to Health Services***

In almost all FSE formal and informal<sup>35</sup> direct out-of-pocket payments (OOP) by patients have become a significant source of funding for health services over the last few years. The informal component of OOP is defined as the payments (in cash or in kind) made to service providers (individuals or institutions) by those people who are entitled to the services, in addition to any legally defined payment. This can take several forms, including direct cash payments to medical doctors, gift to nurses, or the in kind provision of certain elements of services, such as drugs, nursing or meals in inpatient care, which should otherwise be the responsibility of the provider.

More recently, a growing body of evidence has emerged concerning the extent and the consequences of OOP and of informal payments (see World Bank, 2000a and Lewis, 2001; for Hungary, see Gal, 1999 and for Poland, see Shahriari et al., 2002). In fact, informal payments to doctors and nurses were ingrained in the tradition of the FSE, dating back to the communist times<sup>36</sup>, but they do not seem to have been a matter a concern until the last decade.

The level of OOP and informal payments seems particularly high in Commonwealth of Independent States countries. Concerning the incidence of spending on health and accessibility of services across different socio-economic groups, Abel-Smith and Falkingham (1996) found that in the Kyrgyz

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<sup>35</sup> Out-of-pocket payments refer to those payments for health services which are borne directly by the patients, or their households. The emphasis of this definition is on the direct nature of the payments, which distinguish them from other major sources of health care financing, private health insurance, compulsory social insurance and taxation. The latter all share the common feature of being pre-payment mechanisms: people pay in advance, according to different criteria in the various mechanisms (according to their health risk in case of private insurance, or to their ability to pay in case of social insurance or taxes), but then their health consumption is partially or totally subsidized at the point of service. According to the above definition, given the set of health entitlements in each country, namely the rights to free or subsidized access to health services as defined by the Law, it is to be considered as formal any payment for services not included in the set, and as informal any payment for services included in the set of such entitlements (above the legal co-payment, if services are only partially subsidized by the government). The above seemingly straightforward distinction, however, is extremely difficult to empirically ascertain. First, the population has sometimes a vague idea of their rights to free services, or they do not know the official co-payment rates, such that they are unable to say whether a certain payment for a service was formal or informal, according to the above definition. Payments for drugs, for example, can be ambiguous: if the government is meant to cover the cost of such purchases, any payment the patient makes for them is informal; whereas if it is stated policy that drug purchases are not financed by government, then patient purchases technically do not constitute informal payments. Furthermore, the relationship between formal and informal payments can be quite complex. For example, a payment in a private clinic for a private outpatient visit is in principle a case of perfectly formal payment, but if such payment is not given in exchange for a real medical service, but it is just a pre-condition for the patient to be admitted to a certain ward in a public hospital for a surgery which should be free, then we should classify such payment as informal.

<sup>36</sup> The existence of informal payments was first documented in International publications by World Bank studies early in the '90s. Such studies estimated that 25% and 20% of the funds for health services respectively in Romania and Hungary were out-of-pocket payments and gratuities (WDR, 1993).

Republic 32% for of respondents cash income was not sufficient to pay for health care. In one-fifth of cases the informal cost of inpatient care exceeded the total cash income of all household members for that month. In Georgia, Gotsadze et al. (2001, p. 37) showed that on average a single episode of hospitalization in Tbilisi costs GEL 879, which, at the exchange rate of 2.1 GEL per dollar, is equivalent to US \$ 418. This sum is far beyond the average monthly household salary in the country, equal to GEL 82.8. In Kazakhstan, according to the 1996 Living Standard Survey (Sari, Langenbrunner and Lewis, 1999), inpatient services cost on average 2 and ½ times the poorest income group's monthly income. Reports of inability to afford care in specific circumstances, or need to sell subsistence produce or assets to pay for health care complement the above evidence in showing that the equity impact of health payments may indeed be quite relevant in all the FSU countries. In 1997, in the Russian Federation 41% of those interviewed reported they could not afford drugs (50% among the lowest income group) and 13% could not afford medical treatment. Among the lowest income group, 36% had to forgo outpatient visits. In Georgia, according to Socio-Demographic Surveys, only 46% of those who were sick sought professional treatment., and 20% of those that self-treated themselves did so because they could not afford professional treatment. In 1999 in Tajikistan, among those who needed health assistance, 32% reported they did not seek such assistance because it was unaffordable (Falkingham and Hemming, 1999). The proportion was 42% for the poorest quintile of the population. In this group, 63% were unable to buy prescribed pharmaceuticals, and 21.5% did not have any consultation or prenatal care during pregnancy, because they were too expensive. One third of respondents borrowed money in order to afford health care. In the Kyrgyz Republic, only 41% of those reporting ill health in the bottom quintile sought care, while 62% of the top quintile did. One in three inpatients borrowed money and in the rural areas 45% sold produce or livestock. 15% of the poorest did not seek care even for acute illness because of cost of treatment (Abel-Smith and Falkingham, 1996). In Moldova, more than 30% of respondents in the lowest income quintile reported having to borrow funds to meet the unexpected costs of illness (UNICEF, 1997).

However, the evidence available is still incomplete, among other reasons because it does not suggest any consistent pattern across the region in the size and frequency of informal payments or the types of service for which they are most commonly made (Lewis, 2001). The only consistent evidence is that informal "envelope" payments to physicians constitute the major component of payments for inpatient stays, whereas formal OOP prevail for pharmaceutical expenditure, only partially subsidized by governments, and for outpatient specialist services, where private providers have become more widespread.

### ***1.4.1 Causes of informal payments***

The most important single factor in explaining the extent of informal payments seems to be the level of doctors' and health employees' salary. The few FSE countries where the existing evidence suggests that informal payments are not widespread, such as the Czech Republic, are also those where physician salaries have kept pace with average earnings during the transition. Where wages are low or even unpaid and the private sector is still underdeveloped, informal payments become the only revenue source for doctors. In turn, low salaries are a consequence of the poor fiscal performance and the excessive capacity present within the system.

Apart from the level of salaries, the phenomenon has other complex and deep-rooted causes. Informal payments can be seen as signaling devices that indicate where the greater discrepancies are between the priorities assigned through planning and patients' preferences. Thus, they signal where resources are relatively scarcer, and conversely where they are in over-supply. If factors of production could shift more flexibly, the informal payments would be temporary and they could move around within the system depending on where relative scarcities are at any one time. If, as it is, factors are rigid, though, the signaling value of the informal payments is frustrated and the payments become pure rents that can persist indefinitely. In the FSU countries they are more pervasive because systemic unbalances, between aims and means, between stated objectives and actual economic incentives are greater. In turn, informal payments contribute to foster such unbalances, as no strong interest group is likely to demand a real change. First, there is no incentive for governments to prevent informal payments, since it allows them to save on labor costs: doctors can supplement their low income by charging patients a fee. Second, the degree of awareness in the population concerning rights and entitlements to public services is poor: most people accept the idea that the only way to get quality services is to pay directly. Finally health employees and particularly physicians benefit from informal payments because they earn extra non-taxed income and they can stay in public facilities where they free ride on expensive equipment.

In conclusion, those who suffer more from the pervasiveness of informal payments are the poorer and more vulnerable groups, who are too weak and disorganized to demand a real change.

### ***1.5 Quality and Efficiency of the Delivery System***

Section 1.4 focused on health financing issues. This session focuses on the delivery system, trying to offer a synthetic picture of the situation inherited from the communist regimes. Before the transition

to a market economy, FSE's health systems shared comparable roots, and a few key characteristics. Resources were used quite inefficiently. First, the public health delivery systems were extremely rich in facilities and labour (see figure below, and Jacob and Preker, 2002), at a level comparable to that of the richest countries of Western Europe and North America.

**Table 6: Hospital Beds per 1,000 People in selected Central and East European, Former Soviet Union, OECD and Newly Industrialized Nations (1990)**

Central and Eastern Europe	Beds per thousand	Former Soviet Union	Beds per thousand	OECD countries and newly industrialized nations	Beds per thousand
Albania	4.03	Armenia	8.6	Austria	9.90
Bulgaria	10.10	Azerbaijan	9.9	Denmark	4.70
Croatia	7.38	Belarus	13.16	France	8.70
Czech Rep.	8.10	Estonia	11.60	Germany	9.60
Hungary	10.14	Georgia	9.73	Greece	5.00
FYR Maced.	6.34	Kazakhstan	13.94	Ireland	4.90
Poland	6.60	Kyrgyz Rep.	11.96	Italy	6.50
Romania	8.92	Latvia	14.04	Netherlands	12.0
Slovak Rep. <sup>37</sup>	7.45	Lithuania	12.41	Sweden	7.60
Slovenia	6.05	Moldova	13.15	UK	6.59
Yugoslavia, Fr. <sup>38</sup>	5.92	Russian Fed.	13.02		
Average	7.35	Ukraine	13.49	Canada	4.20
		Uzbekistan	12.43	Japan	16.20
		Average	12.11	USA	4.50
				Average high income countries	7.7
				Korea	4.60
				Turkey	2.50

Source: World Bank, World Development Indicators, various years

<sup>37</sup> In fact in 1990 the Czech Rep. and the Slovak Rep. were part of the same country, Czechoslovakia. Nonetheless disaggregated data is available for the two parts of Czechoslovakia.

<sup>38</sup> In fact in 1990 Croatia and Slovenia were still part of Yugoslavia. Nonetheless disaggregated data is available for the two, and it is presented separately from Serbia and Montenegro.

**Table 7: Physicians per 1,000 People in selected Central and East European, Former Soviet Union, OECD and Newly Industrialized Nations, 1990**

Central and East Europe	Number of physicians per thousand	Former Soviet Union	Number of physicians per thousand	OECD newly nations	countries and industrialized	Number of physicians per thousand
Albania	1.3	Armenia	3.3	Austria		3.0
Bulgaria	3.5	Azerbaijan	3.5	Denmark		3.4
Croatia	2.2	Belarus	4.2	France		2.9
Czech Rep. <sup>39</sup>	3.0	Estonia	3.2	Germany		3.4
Hungary	3.2	Georgia	4.5	Greece		3.9
FYR Macedonia	2.3	Kazakhstan	3.5	Ireland		2.1
Poland	2.3	Kyrgyz Rep.	3.0	Italy		5.9
Romania	1.7	Latvia	3.4	Netherlands		3.1
Slovak Rep.	3.5	Lithuania	3.9	Sweden		3.1
Slovenia	2.3	Moldova	3.5	UK		1.7
Yugoslavia, Fr. <sup>40</sup>	2.0	Russian Fed.	4.2	Portugal		3.2
		Ukraine	3.5	Canada		2.1
Average	2.5	Uzbekistan	3.1	Japan		1.8
				USA		2.6
		Average	3.6	Average high-income countries		2.9
				Korea		1.1
				Turkey		1.1

*Source:* World Development Indicators, various years

Tables 6 and Table 7 compare countries of Central and East Europe and of the Former Soviet Union to those of Western Europe and other middle-income market economies (Korea and Turkey), in relation to respectively the ratio of hospital beds and physicians to populations. The comparisons are illuminating. All FSE were characterized by a very extensive delivery system. In particular, the

<sup>39</sup> See note previous table.

<sup>40</sup> See note previous table.

delivery system inherited by the Commonwealth of Independent States that formed after the break-up of the Former Soviet Union<sup>41</sup> were elephantine, especially in relation to their low per capita income (on average, approximately 1/10<sup>th</sup> of that of established market economies). They were also characterized by longer lengths of stay (LOS), as acute hospital beds were used for sub-acute or chronic care.

Second, inpatient care was taking a disproportionate share of the public budget (on average, approximately 60-65% of the total). In FSE the health delivery systems were based on an efficient network of mostly single-specialty hospitals, according to the *Siemaszko* model of the Soviet Union. A vertical and segmented approach to disease management characterized such model, which might have been originally appropriate to address communicable diseases but that certainly became outdated and unsustainable as the disease burden shifted mostly towards chronic diseases in the '60s. Moreover, there was no system of peer-review or other means for internal and/or external quality control.

Third, the system was characterized by a very convoluted governing structure, where different health providers were accountable to different ministries<sup>42</sup> and different levels of government, federal, regional, district and city level.

Fourth, the FSE's health systems completely lacked incentives for individual workers, as well as for institutions, to improve the level and the quality of services, or to improve efficiency. Given the criteria for the allocation of funds across facilities, which was based on existing capacity, historical expenditure and reported costs<sup>43</sup>, the management of health facilities had few incentives to develop strategic planning functions, to introduce innovation or to adapt to environmental changes. Salaries were low and seniority-based, career progress was unrelated to performance but to political affiliation.

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<sup>41</sup> In Central and East European countries, considered as a group, population-weighted averages for hospitals per 1000 people and for physicians per 1000 people were in line with the corresponding averages for West European countries. However, they exceeded the corresponding averages for other middle-income countries, such as Turkey and Korea.

<sup>42</sup> According to rough estimates, in several FSE total medical resources at the disposal of all other ministries were almost equivalent to those under the jurisdiction of the MOH (Langenbrunner, Wiley, 1999). Co-ordination among ministries was extremely poor.

<sup>43</sup> No use was made of epidemiological or utilization indicators (with the exception of occupancy rates).

During the transition years the need for health reforms able to tackle the issues of excess capacity and inefficiency became compelling as the health systems became fiscally unsustainable in several of the FSE. Thus, taking the image of an airplane to describe the health systems inherited from communist regimes, one may say that, although to a different extent, in all FSE countries the plane was too big compared to need, was highly ineffective in its engines, unsafe and uncomfortable, and was often flying in the wrong direction. When the fuel signal turned red at the end of the eighties, all these shortcomings became evident.

### ***1.6 The growth of the private sector in service provision***

Before analyzing the major reforms implemented in the public sector over the transition years, it is worth mentioning in this section a phenomenon that has emerged over the transition years, partially as the result of deliberate health policies, but partially as a “spontaneous” sector development in reaction to the tight government financial constraints and to the transition of FSE to market economies, namely the growth of the private sector in service provision.

Most of such growth has so far been concentrated in primary and in outpatient specialist care. In Krakow, Poland, for example, a study by Berman and Chawla (1999) shows that over one third of physician contacts (and over half in terms of value) for ambulatory care services take place in private facilities, while 1,096 publicly employed specialists spend an average of 10.8 hours a week working in their private practice. In the Czech Republic 9.4% of hospital beds were private in 1997. In Hungary, by 1996 80% of the budget for kidney dialysis was paid to private providers (Kornai and Eggleston, 2000). The importance of the private sector is likely to be even greater in those countries of the FSU where the financial collapse of the public sector has been more pronounced, although we lack precise data on the extent of the private delivery sector in this region. Also, in several countries the distinction between public and private institutions is increasingly blurred, as public facilities are managed independently, receive most of their funding from OOP (formal and informal), and their juridical status is undetermined. In fact, some countries (for example, Georgia) are struggling to precisely articulate the legal status of facilities that were formally public and that are increasingly *de facto* managed as private facilities.

The growth of the private sector in service provision is relatively recent and still unexplored. Thus, any assessment of this phenomenon is by necessity tentative, also based on other international experience (for example, from Latin America). In brief, if the growing importance of the private sector contributes to increase competition and to enhance quality, it is a desirable outcome. Private

provision is potentially able to bring about a more efficient and consumer responsive delivery system. It is very important, though, that the private sector develops as an independent and competitive alternative to the public sector, and the evidence available in FSE does not point in this direction. On the contrary, the public and the private sector seem to be increasingly inter-linked in an awkward sort of symbiosis, where the private sector benefits from the disorganization and the lack of financial resources in the public sector, and where the public sector can survive unchanged because its unbalances (for example between existing salaries and health workers' legitimate expectations) are relaxed through private sector practice. In this situation, doctors and other health employees, supposedly employed full-time in the public sector, in fact earn most of their salary in the private sector, and use their public employment mainly to gain a clientele for their private activity and to utilize expensive equipment they could not otherwise afford.

## 2. HEALTH SECTOR REFORMS IN FSE

### 2.1 Introduction

Before discussing the health reforms implemented over the last decade, we point at two limitations of the analysis that follows. First, by reading through the several official policy documents produced along the health reforms process, one is surprised to see how sparse the quantitative evidence on the impact of the health reforms is. With very few exceptions, it seems that an extremely limited amount of resources has been devoted to try to rigorously monitor and evaluate ongoing reform efforts. The quantitative evidence available is generally limited to a few aggregated indicators, such as number of beds, or number of physicians, or number of inpatient cases, or average length of stay in hospitals, on the basis of which it is very difficult to ascertain whether health reforms achieved their intended results. This essay is very much constrained by such dearth of data, and several of its conclusions are based more on direct experience or on theoretical speculation than on conclusive empirical evidence. It is hoped that although the detailed views are open to further debate and refinement, that the core assertions do resonate with the experience of others and therefore do provide a basis for deciding how best to tackle the key outstanding issues.

The second limitation stems from the paper's attempt to draw some generalizable conclusions from the experience with health reforms in the region. Focusing on the unifying features across 27 countries, the paper does not fully take into account the important differences among individual countries<sup>44</sup>, and it does not investigate in detail single reform components in individual countries<sup>45</sup>.

During the '90s, while undergoing the process of transition to market economies, several FSE began to discuss and to implement health reforms in the finance and the organisation of health services. The general direction of these reforms has been towards new funding, resource allocation, and provider payment mechanisms, greater autonomy for hospitals, decentralisation in health care administration, and the establishment of semi-independent sickness funds.

The health reforms in FSE shared core features with the reforms implemented in several countries in

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<sup>44</sup> One key distinction, though, is considered, between on the one hand countries of Central and Eastern Europe, such as Slovenia, Poland and the Czech Republic, and on the other the rest of the ex-socialist countries, particularly most of the Former Soviet Union countries.

<sup>45</sup> Brief introductions to single reform components in individual countries are contained in the Boxes.

West Europe, starting in 1990 in the UK. Such reforms became known as “internal or quasi market” (or managed competition, according to US terminology<sup>46</sup>) health reforms. They were intended to create incentives for a more efficient and a higher quality provision within the public health sector by replicating “market-type” mechanisms for the purchasing and payment of publicly funded health services. According to the "internal markets" model, the central government should have retained the role of financing and of externally regulating the health sector, whereas direct management and provision of services would be progressively left to semi-independent units.

In the UK, the “quasi-market” health reforms had three main components<sup>47</sup>:

- a) Split of Health Authorities (HAs) into provider and purchaser units;
- b) Introduction of GP Fund holders (GPFHs), alongside Health Authorities, on the purchaser side. GP Fundholders were groups of primary care doctors administering an independent budget, based on capitation funding, used to pay for their own services and for their referrals of patients to higher-levels of care (mainly to outpatient specialist care).
- c) Corporatization of hospitals, progressively turned into Hospital Trusts with separate budgets and semi-independent management, mainly funded according to contracts set with Health Authorities.

While reforms inspired by the “quasi-market” or “managed competition” model were underway in West Europe, comparable reform proposals were discussed in several FSE countries. In the latter group of countries, however, the economic and institutional context was totally different. At the beginning of the ‘90s the majority of FSE were setting the basis of a market economy and of a democratic political system, a radical shift from the planned economy and dictatorial political regime of the past.

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<sup>46</sup> The reforms were first articulated by the American health economist A. Enthoven. In fact, there are as many versions of the managed competition model as the number of countries that implemented it. Moreover, the reforms were first devised for a country (the USA) characterized by a plurality of health purchasers and insurers, competing with each other. Where they were adapted to reform health systems characterized by a monopsonistic purchaser, they became characterized very differently.

<sup>47</sup> According to the theoretical model first proposed by the American economist Enthoven, and “adapted” to the British context by Maynard, providers would compete for health contracts, and GPFHs would compete alongside HAs for public funding on the purchaser side. Competition was meant to promote a more efficient and consumer-responsive system, by offering: “greater rewards for those working in the NHS who successfully respond to local needs and preferences” (“Working for patients”, 1989, pp.3-4). “Working for Patients” is the title of the White Paper outlining the reforms for the British National Health System.

## *2.1 Health reforms to date*

FSE can be divided into three groups according to the pace and the comprehensiveness of the health reforms introduced over the last decade. At one extreme of the spectrum we find the “committed reformers” countries (Czech Republic, Estonia, Poland, Georgia), where comprehensive health reforms were implemented. At the other extreme one finds the “resilient non reformers” countries (Ukraine, Slovenia, Bulgaria, Azerbaijan, Belarus) that fixed problems with minimal adjustments and only when they became critical. In between, there is a third group including the majority of FSE, where governments changed parts of their health systems, without touching other key components. Within this group one can also distinguish between smaller countries, such as Latvia, Hungary and Armenia, which adopted a nation-wide approach to reforms, and larger countries, such as the Russian Federation, where reforms were mainly led at the regional level.

Health reforms were characterized by two core components: health financing and resource allocation criteria. On the health financing side, in several countries (among which: Hungary (1991), Czech Republic (1992), Poland (1999), Croatia, Slovenia and Macedonia and, in the FSU, the Baltic States, Georgia, Russia and Kazakhstan) the emphasis was initially on establishing a social health insurance system, managed by a sickness or insurance fund separated from the government and mainly funded through an earmarked payroll tax. In principle the new agencies, entrusted with the role of purchasers of services vis-à-vis providers of services, should have added pressure and incentives for cost-containment, efficiency and/or quality enhancement through:

1. Contractual specification of mutual responsibilities with providers;
2. Promoting competition (for the market or within the market) among providers.

In order to stimulate economic incentives providers’ payment systems were also revised. Hospitals’ payment system, traditionally based on inputs and historical expenditure, moved towards a cost-per-case or fixed-price payment (Hungary, Baltic States, Georgia, Armenia and Poland, some regions in the Russian Federation) or fee-for-service payment system (Croatia, Czech Republic). Individual practitioners, specialists and general practitioners that traditionally received fixed salaries were subject to new capitation or activity-based payment systems.

Other important elements of the reforms included:

- Strengthening of primary care. In Croatia and Estonia and then in Poland, Hungary, Latvia and several other countries of the region, a new specialty in primary care was created and re-

training programs for general practitioners were initiated. This was meant to be the first step towards a more profound reorganization process, aimed at eventually making general practitioners “gate-keepers” to the rest of the health system.

- Decentralization. Ownership of many facilities was transferred to regional and local governments, and at the same time local governments were asked to contribute to fund public health services.

## ***2.2 Strengths and Weaknesses of Health Reforms to Date. Lessons Learned.***

The macro evidence available suggests that the above reforms did not lead to significant improvements in health systems' effectiveness and accessibility, with very few exceptions concentrated mainly in CEE countries.

Before analyzing more in detail the single reform components, let us first summarize a few overarching issues and lessons from the experience with health reforms in the region. First, in several countries the social and economic transformation unleashed by the socialist system's collapse was highly disruptive and it placed an enormous pressure on health services<sup>48</sup>, making it impossible to maintain the previous standards of accessibility and quality. “During the transition, drastically worsening hygienic norms, shortages of water and electricity, lack of heating caused a daily battle for survival for many hospitals, with rural areas being in a worse condition. The supplies of pharmaceuticals and medical consumables were considerably reduced. In many cases, humanitarian assistance could only partially cover the supply for emergency care, vaccines, antibiotics” (Wiley and Langenbrunner, 2002)<sup>49</sup>. Moreover, the crisis entailed some severe long-term consequences. For example, capital investment was drastically reduced and, as a result, premises lacked maintenance and refurbishment. Thus, the transition years showed once again that the health sector is an integral part of the socio-economic structure, and that it is illusionary to believe that it can remain untouched in a context characterized by persistent economic recession and social degradation, such as that experienced by several FSU countries.

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<sup>48</sup> Again, countries in Central Europe such as Poland and the Czech Republic, are somewhat an exception, as they were able, shortly after the collapse of the communist regimes, to set the basis for the new democratic institutions and for economic development

<sup>49</sup> According to Palu (1999) in the Baltic countries also nosocomial infections became very high.

Second, the experience in the region during the last decade seems to suggest that successful reforms inspired by the “managed competition” or “internal market” organization model would comprise a package of several key elements able to sustain and reinforce each other, among which are the following: 1) strong primary care, able to perform its core "gate-keeping" function; 2) a sound and sophisticated hospital management system to cope with the new payment methods; 3) fairness, and independent, strong management on the part of sickness funds; 4) the possibility of competition among different public and private and public providers; 5) Finally, an impartial stewardship role on the part of government.. Absent any of these key elements, also the others are likely to produce disappointing results. In many instances, health reforms in the region introduced some positive innovations in the health sector, but they were not accompanied by other key components that could sustain them. For instance, the new payment systems for providers in general represented a positive change from the previous input-based criteria. But payments systems are not per se a panacea. They must be accompanied by broader reforms, encompassing new management and information systems able to control costs and prevent abuse, a new proactive role for purchasers, and control over other sources of funding such as informal payments. All of these accompanying elements were lacking in payment system reform (for the case of Hungary, see Box 2.2). Other times, governments engaged in tokenistic reforms under the pressure of western donors, without really changing the underlying previous practices.

Third, the experience with health reforms in FSE shows that the new organizational model proposed for health, known as "managed competition" or "internal markets", is perhaps too fragile and institutionally demanding for countries with poor legal and administrative underpinnings. Only in the few countries where such pre-conditions were at least partially in place, such as the Czech Republic, health reforms' results have been promising. In general, reallocating inputs and changing existing practices has proved exceedingly difficult. The purchaser-provider split, the new resource allocation and payment systems have proved insufficient to induce the rapid change that was expected.

Let us now explore more in detail some of the core health reform components:

### *2.2a Insurance or sickness funds*

The new social insurance or sickness funds achieved mixed results. On the one hand, they contributed to build new institutional capacity in the public sector, and some of the more promising reform initiatives were channeled and promoted through their apparatus. On the other hand, the necessity to strengthen them diverted resources from other urgent programs during a period of extremely tight

fiscal constraints, and it did not induce the planned rationalization of the delivery system. Many factors contributed to this outcome.

- The overlapping of responsibilities among the insurance funds, the Ministry of Health, the other Ministries (Finance, Education) and the local governments created an uncertain and convoluted governance structure. In several countries the government assigned the sickness funds the role of financing providers, but maintained or devolved to local governments the ownership of hospitals and of polyclinics. The prerogatives of the "funder"(the insurance fund) as opposed to those of the "owner" (the central or local government) were not specified. For instance, hospitals that did not receive resources from the funds were able to find alternative sources of funding through other programs managed by the central or local governments. Moreover, insurance funds have been unable to influence the allocation of capital expenditure, still under central governments' control. As a result of the convoluted governing structure created by the reforms, providers and particularly hospitals in practice became non-accountable to anyone (Jakab and Preker, 1999). In order to regain some control over the delivery system in several countries the role of the sickness funds is currently being reassessed. In Kazakhstan and in the Kyrgyz Republic governments recently reversed their earlier decision to create separate insurance funds.
- Social insurance funds were subject to the same strong political pressures opposed to change that would have opposed any real innovation, regardless of the institutional cover chosen to promote it.
- The fiscal collapse and the surge in informal payments made it very difficult to really keep providers under financial control.
- Finally, absent competitive pressures and accountability mechanisms, the new insurance funds could become as monolithic and consumer-unresponsive as the bureaucratic apparatus they were meant to replace. In most countries only one regional fund is available to the population, and there is no competition between insurance funds. Creating and preserving competition among different insurers/purchasers while at the same time maintaining universal health coverage is not an easy task (see Newhouse, 1996; Belli, 2001, see also Box 2.6 on the Czech Republic's experience), but governments need to find a way to make purchasers of services more accountable to patients. We discuss some of these issues in the next section. One of the lessons from reforms in the region is that with a single source of funding and a leading purchasing agency *de facto* under government control, the resource allocation criteria have continued to follow the same criteria as before.

### *2.2b Primary care*

After the creation of the specialty in family medicine<sup>50</sup> in several countries, such as Estonia, Latvia, Lithuania, Hungary, pilot projects have been successfully completed to retrain primary care doctors. However, only in Estonia the re-training process has already been completed across the country, and it is likely to bring significant results sector-wide in the near future. Georgia has recently initiated a program to provide rural-based primary care services.

In few countries, such as Poland, the reform of primary care has gone further by assigning GPs a gate-keeping role for access to subsequent levels of care. This further step has achieved varied results and has been subject to severe criticism. First, patients are used to directly refer to specialists and they have been uncomfortable to adapt to the new referral system. Second, the new financial role envisaged for primary care doctors may encourage under-treatment, cream skimming and risk-selection (see Box 2.1).

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<sup>50</sup> In the Soviet Union it existed the specialty in Internal Medicine. Patients were used to refer directly to polyclinics and to specialists without consulting their primary care doctor.

**BOX 2.1: The Polish experience with primary care reform**

From January 1999, in Poland each individual primary-care doctor receives an adjusted capitation funding and she/he is financially responsible for referrals of patients to most outpatient specialists. At the same time, it is compulsory for patients to obtain a referral from their primary care doctor to access specialist care. A similar organizational model was initiated in the UK in 1991 (GP Fund holding scheme). However, while in the UK only groups of doctors having at least a minimum number of patients (5,000) were assigned a budget and financial responsibility for referrals, in Poland the scheme was introduced at the individual level. In the absence of risk-pooling mechanisms, however, the new referral system creates a strong incentive for primary care doctors to under-treat and dump potentially costly patients. In the UK, the GP Fund holding scheme, which implied less financial risk for the individual doctor than in Poland, in 1997 was nonetheless terminated by the Labour government because it was allegedly leading to dumping of patients and abuse of hospital care. Such negative effects are likely to be much more severe when financial responsibility and risk are assigned to the individual practitioner's level

Moreover, in Poland the only way patients could bypass the cumbersome referral system is through emergency admissions. In turn, given the payment system for hospitals, which since 1999 is activity-based, these have an incentive to admit as many patients as possible. Indeed, in 2000 the use of adjusted capitation funding for GPs together with activity-based payment systems for inpatient care caused a rapid increase in hospital admissions (30-35% increase in year 2000), an outcome opposite to that intended by the reforms.

Another issue currently debated in the region concerns the relationship between polyclinics and primary care doctors. Initially, the tendency was to completely separate the two and to create a network of solo practices for family doctors, in order to personalize as much as possible the relationship between them and their patients. More recently, the tendency is to coordinate more and to integrate primary care services with the outpatient specialist care traditionally provided within polyclinics, in order to strengthen an alternative to a hospital-centered system, following a line of evolution already underway in Western Europe (see Box 2.2).

**BOX 2.2: The West-European experience with primary care reform.**

In West Europe, the trend in primary care is towards group practice and a greater coordination with long-term care, public health and with specialist care. Solo primary care practices are substituted by group and multi-practice arrangements (such as Primary Care Trusts in the UK), in an attempt to create an alternative to the previous model centered on the hospital. In the Italy, Spain, Sweden, the UK and other countries the traditional solo-practice organization of primary care has increasingly been perceived as one of the weakest pillar within the public delivery system, and it is undergoing profound changes. Primary care doctors have traditionally enjoyed generous per capita payments and have been immune of any competitive pressure. They were largely unaccountable for their medical conduct, could exclude themselves from retraining programs, and in practice could enjoy a pure rent because patients needed their referral to access further levels of care, or to receive reimbursement for pharmaceuticals.

The reorganization of primary care organization parallels a similar evolution ongoing in all the other "liberal" professions (lawyers, architects and engineers), where the traditional work organization, based on solo practice, stable and individualized provider-client relationship, is being replaced by new organizational modes, based on group practice, a more pronounced division of labor, greater use of technology and on-the-job continuous training.

### *2.2c Decentralization*

This component of the reform process has also generated controversial outcomes. It is useful to distinguish between the process of fiscal decentralization, which is the assignment of part of the health financing responsibilities to the local governments, and the devolution of the powers to organize and manage health services to the regional, district or municipal governments. At the beginning of the '90s, the first process was initiated by central governments to share part of the health-financing burden with the local governments, in the context of collapsing central revenues. The second process was mainly induced by the democratization process and by the need to create a more balanced equilibrium between the central and the local level.

The main areas of concern raised by the process of decentralization in FSE have been the following:

- For the fiscal decentralization process, the lack of compensating mechanisms. As the regions, districts and municipalities were assigned an increasing share of the health-financing burden, in the absence of compensating mechanisms the disparities in the allocation of resources across regions increased. In the Russian Federation, for example, in 1993 the government mandated that local budgets contribute to the mandatory insurance fund on behalf of the non-contributing population, and a year later, in 1994, already 71 percent of all public resources in health originated from local budgets (of the rest, 10 percent came from the federal budget and 19 percent from

payroll taxes collected at the central level). However, the fiscal capacity and willingness to contribute varied enormously across regions and no mechanism to cross-subsidize the poorer regions was put in place. Thus, the fiscal decentralization process led to quite significant unbalances in the allocation of public resources for health across the country.

- Financial irresponsibility and lack of managerial capacity at the local level. Local governments often lacked capacity, and were as unaccountable and as resistant to democratic control as the central government. Local governments have also been prone to be captured by providers' interests and have in many instances resisted plans to close ineffective or underutilized facilities.

### *2.2d Reform of payment system for providers*

This has been one of the reform components that received most attention, and it was assigned a high priority in most foreign-sponsored projects. In the first part of the '90s, several FSE moved from input-based towards activity based reimbursement systems for hospitals. Reformers claimed that the new cost-per-case or fixed price payment system would lead to greater efficiency by subjecting providers to a hard budget constraint, would reduce hospital costs by reducing funding for scarcely utilized facilities, and would promote patient-responsiveness by implementing the principle that "money follows the patient".

If we denote by  $\Pi$  the hospital surplus, by  $x$  the number of cases treated, by  $p$  the unit or average payment that the hospital receives, and by  $c$  hospital costs,  $\Pi(x) = p(x)x - c(x)$ , we can see that a cost-per-case reimbursement is equivalent to fixing ex-ante the unit price or average revenue  $p$ . Under this arrangement, the only ways the hospital can increase its surplus is either by treating more patients (as long as price exceeds marginal cost), or, if relative prices do not reflect relative costs, by focusing on the more profitable cases, or by minimizing resources spent on each case treated. Thus, this payment system can either result in greater productive efficiency, or in more patient admissions and a worse case mix. In FSE, where hospital managers had extremely scarce control over unit costs, the second and the third effects were more common. The new payments systems generated some efficiency gains such as a reduction in average length of stay, but in general they did not induce any containment in total hospital costs, nor did they deliver the efficiency breakthroughs that some expected (for Hungary, see Box 2.3).

### **BOX 2.3 Reform of hospital payment system in Hungary and Croatia**

In 1993 Hungary introduced a new payment system for hospitals, which at the time was the most sophisticated one in the region, based on the number of discharges according to the DRG classification (Homogen Betegseg Csoportok in Hungarian). The new payment system was continuously refined for almost a decade. Despite this extensive effort, the new payment system did not trigger the radical changes that some expected. Confirming previous trends, hospital admissions rose from 21.8 to 24.2 per 1000 between 1990 and 1996, average length of stay decreased from 9.9 to 8 days and the share of hospital expenditure on total remained roughly constant. The national case-mix index increased from 0.97 to 1.10 (Dorotinsky, 1998; Orosz and Hollo, 1999). Local administrators increased revenues under the new payment system by increasing hospitalization and by miss-classifying patients (DRG creep). Finally, informal payments made up for the fall in doctors' formal salaries and, between 1991 and 1997, employment in the health sector decreased only by 2 percent.

In Croatia, bed-day and fee-for-service payment for hospitals determined a 70 percent increase in real terms of inpatient care expenditure between 1994 and 1998. Hospital budgets have recently been capped in an attempt to contain the surge in inpatient expenditure.

The increase in hospital admission was also favored by the exclusion of outpatient but not of inpatient pharmaceutical expenditure from public reimbursement, and by the new financial incentives for general practitioners associated with the referral system (see Box 2.1).

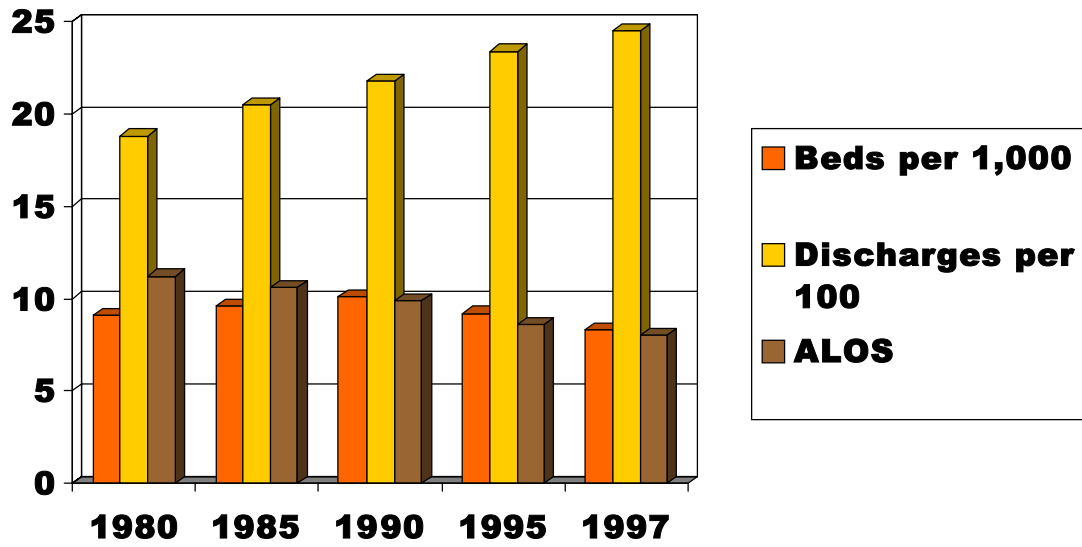


Figure 1: Hungary: Impact of Payment Reform on Hospital Sector

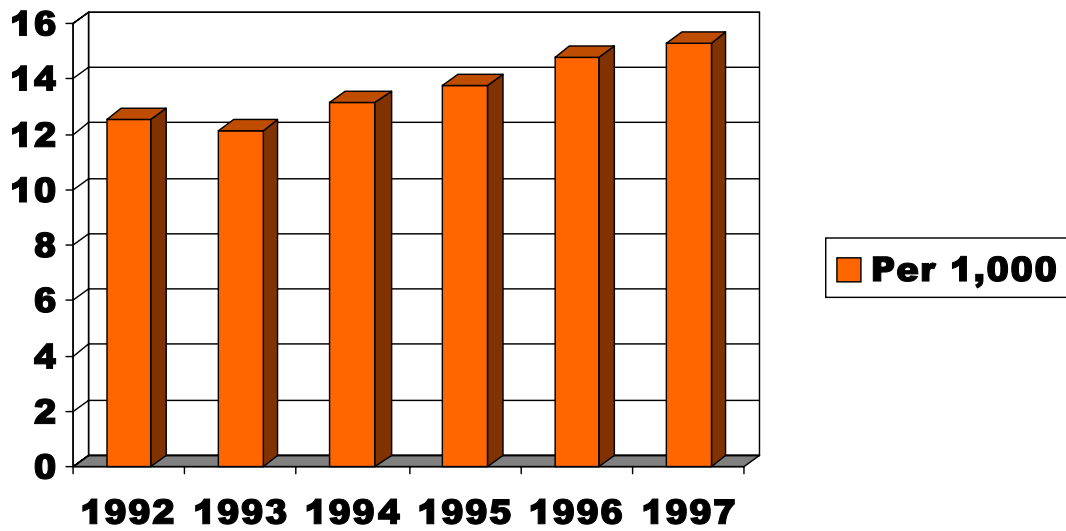


Figure 2: Croatia: Hospital Admissions increasing Source: *Langenbrunner & Wiley (1999)*

### *2.3 Options for health sector reform in the future*

A first obvious consideration is that any particular reform plan will have to consider and adapt to individual countries' circumstances. Yet, FSE also inherited health systems that share core features and problems, and some of the key necessary steps ahead in the reform process are thus the same. Some of the key steps ahead in the reform process are briefly discussed in the following:

#### *2.3a Strengthen public health measures against communicable diseases*

The evidence on the burden of disease shows that a few well-focused health policy initiatives in the area of non-communicable diseases' prevention could probably lead to the more significant reductions in the burden of disease. FSE governments need to do against chronic disease what they were able to do against communicable diseases in the '50s and '60s<sup>51</sup>, when, owing to strong public health measures such as compulsory childhood immunization, they achieved better health outcomes than other countries with similar levels of income.

Perhaps the more effective health interventions ought to be targeted at the demand side, trying to influence life-styles and consumption patterns. These are partly ingrained in deeply rooted cultural attitudes that are difficult to change, but partly they are determined by the level of "health awareness" in the population. For the majority of the population in FSE there is ample scope for improvement through simple interventions<sup>52</sup>.

However, interventions targeted at the demand side are likely to produce their full effect only in the long-term. In the short-term supply-side interventions are required, such as a stricter control over the most lethal threats to FSE population's health, tobacco and alcohol<sup>53</sup>, or health motivated restrictions

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<sup>51</sup>Note, however, that programs against communicable diseases deteriorated in several countries over the transition years. Even basic services, such as immunization services and prenatal care, which had reached standards comparable to those in Western Europe in the 60 through the 80s, could not be sustained. According to World Bank, 1999, in 1998 in Georgia only 63% of children were immunized against measles, and none in 1994-95, because of lack of vaccines. In several of the countries of the FSU and particularly in the Central Asia republics the administration of vaccines is completely left to International NGOs, and immunizations services leave out approximately one-third of the total number of children (30% in Kyrgyz Republic and 20 in Uzbekistan, according to World Bank, 2000), mostly from the poorer backgrounds and the more remote areas.

<sup>52</sup> The most effective attacking point for influencing life-styles is of course education of the new generation. Healthier life-styles may be promoted through an array of initiatives, ranging from basic hygiene and nutritional notions for kindergarten and elementary school children, to reproductive health courses for adolescents. For the adult population, probably the most effective interventions would be health information and promotion campaigns to be channeled through the media.

<sup>53</sup> Short-term measures should include raising the excise taxes on tobacco or alcohol products, as well as

meant to improve the quality of the air and the water, and to strengthen safety on the roads, in the work place, and in people's homes<sup>54</sup>. As important, health policies should aim at providing families with access to a minimum set of assets and of services<sup>55</sup>, independently of their socio-economic-status.

Finally, maternal and childcare are critical area yet to be addressed, especially in the poorer countries of the region. The potential impact of relatively inexpensive health interventions in this area is immense. Most of the deaths could easily be avoided by simple measures, such as better information and better hygiene in the operating theatres. A striking example is abortion. Education and information campaigns on the demand side, greater availability of birth-control methods on the supply side, could all play a tremendous role in reducing the incidence of abortions, with negligible additional cost for the health system as a whole. In fact, alongside the huge human suffering saved, also in monetary terms health systems would most probably benefit from the diffusion of modern contraceptive methods.

### *2.3b Strengthen health financing*

The evidence presented above clearly shows that the health financing issues facing the two groups of countries, on the one hand the CEE and, on the other, most FSE countries, are of different nature and order of magnitude. In the FSU, with the exception of the Baltic countries, the payroll tax earmarked for health has been set at extremely low rates and its revenues have been negligible (see Langenbrunner and Wiley, 1999). The "extra-budgetary" status of payroll health contributions has made their collection even more problematic and tax evasion has been rampant. Moreover, in FSU countries only a fraction of the general budget assignments to health approved by the Parliament at the beginning of each year have actually been transferred to the health sector by the government over the course of the year<sup>56</sup>. As a result, the resources allocated to health by the government have continued

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further restrictions such as banning tobacco and vodka advertising. In only a small group of countries in Central Europe, the Czech Republic, Slovakia, Slovenia, preventive campaigns against tobacco and alcohol consumption and for better lifestyle have been fully put into effect, while in a few others, such as Poland, Hungary and Croatia, the first significant steps in the protection of non-smokers have been only initiated.

<sup>54</sup> Among these health-motivated restrictions: 1) stricter regulation of motor traffic speed; 2) compulsory use of seat belts and helmets for travel and work safety; 3) mandatory food supplements in schools; 4) tighter control over food quality.

<sup>55</sup> For example, access to drinkable water, heating and basic energy supplies should be universally guaranteed. During the transition in FSU countries access to these basic services has radically worsened. This has created a severe health impact, especially for the most vulnerable groups (elderly and children).

<sup>56</sup> Whenever revenues could not match the amount forecasted, the Ministry of Finance set a limit on the cash transfers to each budget line lower than the amount assigned by the budget approved by Parliament.

to be largely insufficient, erratic and shrinking over time in real terms. Thus, one of the major health policy challenges in this group of countries is to find alternative health funding sources that are reliable, equitable, and that do not create excessive distortions in the economy. In the countries where the credibility of and trust in central government institutions is practically non-existent, such as Georgia, the potentiality of community-based health insurance schemes (CBHI), and other grass-root level prepayment schemes ought to be further explored<sup>57</sup>.

In the majority of the CEE region, on the contrary, health funding has been more stable and even increasing in real terms in a few countries, such as in the Czech Republic and in Poland. Presently, public health funding predominantly consists of payroll tax contributions. The local and central governments' subsidies finance public health services, current expenditure of the non-contributing segments of the population and capital expenditure. The rest of the health financial resources originate from patients' direct out-of-pocket payments (OOP). In the Czech Republic, for example, 10-15 percent of total health expenditure is financed by general and local budget transfers. Another 9 percent of the total consists of OOP, and the rest (approximately 80 percent) is funded through the payroll tax. In Poland and Hungary, the share of OOP is larger (approximately 23-25 percent), and in Romania still larger (approximately 33 percent).

So, while several FSU countries face the problem of increasing the share of public health expenditure over their GDP, most CEE and the Baltic countries confront the issue of how to contain total public health spending and at the same time to preserve equity and quality of services.

However, one common key challenge faces both groups of countries: how to strengthen health financing sources alternative to the payroll tax contributions. The latter does not seem viable as an exclusive nor a principal source of funding for the health sector in the medium-long term: in some CEE countries the rates of the payroll tax earmarked for health have reached extremely high levels, and yet its revenue is still insufficient, whilst in most FSU countries the revenue from the payroll tax is negligible and insufficient to fund even a minimum level of health entitlements. At a deeper level, the payroll tax would be practical in economies with high shares of formal employment and with relative economic stability, while the evolution of FSE points in exactly the opposite direction. The share of

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<sup>57</sup> The literature (see for example Bennett, 1998) has highlighted the several limitations of such schemes, where they were experimented (particularly in Africa). Adverse selection and moral hazard problems seem particularly severe, and difficult to control. However CBHI is the only option available in countries where the central government is totally discredited, and where the level of poverty limits the potential of expanding the private sector alternative.

the economy and of employment that are “informal” is continuously rising, and the high payroll taxes in CEE countries have contributed to encourage enterprises to stay “underground”. Moreover, in international perspective, CEE and FSU economies largely base their comparative advantage on the availability of relatively inexpensive but at the same time well-trained labor. Thus, the potential growth-thwarting impact of high health and social security contributions exclusively linked to wages is likely to become a more important factor to consider as the process of globalization and of economic integration within the European Union advances.

Alternative means of financing health services on a pre-payment basis that could and should be strengthened consist in general budget transfers for the public component, and in voluntary insurance contributions for the private component.

Presently, these two sources of funding for health are both extremely constrained in the majority of FSE countries. The government’s spending capacity through the general budget is ultimately determined by its fiscal and tax collection potential, which are still very poor in most countries, particularly the direct tax component. In former socialist economies traditionally the personal income tax was not a significant source of revenue because government expenditure was mainly funded through direct economic activities, or through indirect taxes. Social services, including health, were directly funded by productive units (Kolkhoz, firms, etc.).

Voluntary insurance schemes are currently limited to a small wealthier minority segment of the population. Any plan to strengthen them would encounter several difficulties. First, the existing qualitative evidence from the FSU shows that, because of financial scandals and collapses of the past decade, people in general do not trust private for-profit financial or risk-management institutions (see Belli et al., 2002). Second, adverse selection and moral hazard would potentially thwart the growth of any voluntary scheme, unless the government guarantees universality and continuity of enrollment<sup>58</sup>. Despite all the above difficulties, voluntary health insurance schemes still seem to have a great potential to grow in several of the former socialist economies because there is a large unmatched demand for health insurance, particularly against catastrophic events.

Finally, to contain the phenomenon of informal payments and reduce their negative impact a multiplicity of interventions is required, including the strengthening of pre-payment and insurance schemes. Among the other interventions mentioned in the literature are the following:

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<sup>58</sup> On this point, see section on payment system and purchasing reforms, hereafter.

- Align the scope and scale of health entitlements and of the public delivery system with the available amount of resources. Guarantee a sustainable level of funding for public services and an adequate level of payment for health employees.
- Establish socially acceptable policies concerning formal user charges.
- Improve patients' information and awareness concerning their health entitlements; empower patients' representative groups.
- Reform the criteria according to which health personnel are paid, and move away from the fee-for-service system currently utilized. One option could be to introduce higher level of total remuneration that pays a fixed annual increment bonus based on observable performance criteria (e.g. target for the volume or type of services offered to the population, etc). The bonuses are financed from official payments. One of these criteria would be willingness not to accept informal payments<sup>59</sup>. Further work needs to be carried out that could help develop these new payment mechanisms.
- More in general, strengthen transparency and accountability at the different levels of government and within the delivery system. "Objective" resource allocation criteria are preferable to discretionary ones, particularly in contexts characterized by widespread corruption<sup>60</sup>.

### 2.3c Downsize the delivery system

The "soft" restructuring policies pursued over the last decade, based on the slow financial strangling of under-used facilities through the use of output-based payment systems, have not achieved the expected results<sup>61</sup>. The capacity of the delivery system has indeed been reduced, but extremely slowly and not along all dimensions (for instance, the number of physicians has increased in several FSU countries). Excess capacity is still one of the more severe problems in the region, preventing adequate financing of existing facilities and personnel<sup>62</sup>. Several countries (including Latvia, Kazakhstan, Kyrgyz Republic, some Oblasts in the Russian Federation and Georgia) are currently moving towards more

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<sup>59</sup> See Ensor and Killingsworth, 2001, p. 12.

<sup>60</sup> For instance, if services for vulnerable groups are for free, it is necessary to specify precisely who the "vulnerable groups" are. Otherwise, as it is presently the case in Georgia, most resources (approximately 2/3) of the program supposedly for vulnerable groups are in fact used to pay for expensive treatments in favor of the Ministers' *entourage* and their families.

<sup>61</sup> Adjusting capacity at the margin (by closing beds) has not worked either.

<sup>62</sup> In many cases, the amount of financial resources received by underutilized facilities has been just sufficient to keep them alive, but insufficient to enable them to renew their equipment and to provide reliable and timely services.

direct supply re-planning and restructuring policies, managed by the central government. The new official policy documents, known as “hospital restructuring or master plans”, outline courageous projects for downsizing the delivery system by: (1) closing idle or only partially operational facilities; (2) relocating and merging numerous single specialty facilities under general hospitals; (3) substituting acute and sub-acute care beds with day-care, rehabilitation and long-term care beds; (4) privatization of non-strategic facilities and utilization of the revenues for renewal of a few strategic ones. To our knowledge no rigorous evaluation of the results so far achieved in restructuring the delivery system

**BOX 2.4: Hospital restructuring plans**

In Kazakhstan reductions in beds and facilities have been in the order of 40-50 percent. Between 1994 and 1997 in the Dzheskasgan region, the organizational and management reforms led to a decrease in the number of beds from 6,225 to 2,919 and to the reduction in the number of hospitals from 55 to 22 (Horst, 1998).

Georgia and some regions within the Russian Federation (Tver, Kaluga, Novgorod Oblast and Chuvash Autonomous Republic) have recently implemented hospital restructuring plans that originally foresaw a profound downsizing of the delivery system through consolidation and privation of facilities. However, few of the planned hospital closures have actually been completed.

One of the more contentious aspects of the restructuring plans concerns the problem of labor force "re-deployment". The health sector is a major employer in the region and physicians representative groups are politically very influential. In order not to be paralyzed by physicians' opposition and to succeed, restructuring plans ought to utilize severance pay schemes and other financial incentives for retirement or re-qualification.

has been published.

*2.2d Renew clinical practice*

To date, financing, resource allocation and purchasing reforms have proceeded more quickly than changes in the clinical management of care. To bridge the East-West gap in medical practices two types of interventions are particularly important. First, providers' clinical skills ought to be upgraded to reflect state-of-the-art medical practice, which relies more heavily on evidence-based medicine. Second, new protocols ought to be developed, as some of the existing medical protocols used in former socialist countries are outdated by decades, especially as concerns, prevention of non-

communicable diseases and outpatient disease management, (e.g., management of TB and hypertension). Furthermore, too many specialists and too few general practitioners, nurses and health paraprofessionals characterize FSE's health systems. To rebalance the mix of health professionals a reform of medical education is needed, in line with internationally recognized curricula.

### *2.3e Reform of payment systems*

The first generation of payment systems' reform was characterized by the introduction of activity-based payments system, fee-for-service or, more frequently, fixed price. As we previously explained, such payments systems led to some reduction in unit costs, but also to a proliferation of the number of cases treated, and to an overall increase in hospital costs.

More recently, there has been a shift from activity-oriented payment systems to global or capped budgets and capitation funding (Croatia, Slovak and Czech Republic, Kemerovo region in the Russian Federation), as a means to achieve a tighter control over hospital costs. It is now interesting to monitor this second generation of payment system reforms, such as the Koprivnica pilots in Croatia and the global budgets payments for hospitals in the Czech Republic.

However, the magic power attributed to payment systems per se to control costs and at the same time to improve quality is illusionary. The existing theoretical literature tells us a rather different story. It points at the fact that in most situations a choice has to be made among different aims, in the sense that those payment systems that are more adequate to achieve some of them are completely incapable, or even harmful, to achieve others. Adopting a prospectively-determined global budget, or a capitation funding to achieve more stringent cost-control may induce providers to under-treat or dump costly patients, particularly if payment is unrelated to any performance measure.

Moreover, it is important to consider individual incentives alongside institutional incentives. It is useless to devise ever more sophisticated reimbursement systems at the institution level if employees within these institutions continue to receive (sometimes with months of delay) the same poor, seniority-based salaries.

**BOX 2.5: The Kaluga and Tver Regions in the Russian Federation. A recent successful experience of payment system reform**

In the Kaluga and Tver Regions regional governments recently introduced global budgets for a pilot group of hospitals and a partial GP Fund holding scheme as an attempt to reduce volume of admissions that had been soaring under the previous cost-per-case reimbursement system. 70-80 percent of the total health budget was assigned to hospitals on a global budget basis, and hospital directors were granted greater autonomy on the use of these funds. The changes have been accompanied by other minor organizational reforms strengthening the power of administration and their control over costs. Early results suggest that:

- cost per patient significantly decreased (15-30 percent);
- number of inpatient and outpatient specialist visits dropped;
- number of beds was reduced by 40% and staff cuts were also significant.

*2.3f Competition among purchasers?*

Another issue concerns the opportunity of introducing competition on the purchaser side. On the one hand, the experience in the last decade suggests that without competition on the purchaser side the same monolithic, rigid and provider-oriented allocation criteria that characterized the previous organization model are replicated under the new. On the other hand, economic theory shows that competition on the purchaser side can potentially induce adverse selection and upset the financial stability of universal insurance schemes (see Newhouse, 1996; Belli, 2001). Plans that disproportionably cover more expensive patients must receive a premium subsidy<sup>63</sup> to encourage them to enroll such patients.

This theoretical conclusion seems to be of practical relevance. Recent reform plans in Germany and the Netherlands that proposed the introduction of competition among several health funds and insurance companies foresaw the creation of a compensatory fund to discourage risk-selection. Unfortunately, only demographic criteria such as age, gender and residence, which are poor predictors of future health services' utilization, were available and could be used to cross-subsidize premiums (Van de Ven and Van Vliet, 1992). In FSE the information and administrative constraints to the use of risk-adjusters and to preserve a fair playground for competition would be much tighter than in Western

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<sup>63</sup> More precisely, the theory shows that government must be able to subsidize contracts with higher than average premium/benefit ratios and to tax contracts with lower than average premium/benefit ratios.

Europe. Moreover, the legislation of several FSE still exhibits legal "limbos" in the regulation of health insurance (for instance, the absence of a clear bankruptcy law), which, as the experience in the Czech Republic shows (see Box 2.6), can be loopholes through which financially irresponsible conducts and bad management could continue to thrive.

**Box 2.6 Competition on the purchaser side? The case of the Czech Republic, 1991-2000**

In 1991 in Czechoslovakia a new Law, the General Health Insurance Act (ACT 550), shifted health financing from the general budget to a payroll tax set equal to 13.5 percent of gross salaries, separated purchasers and providers, and create competition on the purchaser side. By 1993, 27 new private insurance funds were active in the health insurance market, alongside the National Health Insurance (VZP). Company. When the reform process was initiated, no explicit discipline for bankruptcy existed and providers were reimbursed according to a fee-for-service payment system (a cap had originally been imposed on total expenditure, but it was rapidly abandoned under providers' pressure). As a result of the reforms, between 1992 and 1998 per capita health expenditure grew in real terms from 5.3 to 7.2 percent of GDP (to 9.2 percent, by also taking into account sickness allowances and community level public health programs). In 1995 the first of the newly created insurance funds went bankrupt, followed by others. Moreover, as a result of new government regulation (setting a minimal number of enrollees, a maximum level of administrative costs etc.) other funds decided to merge. By 1998 only 9 insurance funds remained out of the initial 27. At the same time, 80 per cent of the population was enrolled with the National Health Insurance Company (VZP), the first created. In 1995 such fund enrolled only 64 percent of the total. The extent of public regulation has been substantially expanded, and it now rigidly disciplines premiums and benefits, and several other aspects. Under such a tight regulation, "Insurance funds have the incentive to be more "passive payers" rather than active buyers (Maly, 1999, p. 4)".

*2.3g Decentralization?*

This is another critical but yet unresolved aspect of the reform process. Presently, in FSE the pendulum is swinging back towards greater centralization, after a decade in which it moved decisively towards greater decentralization. We have already mentioned the new restructuring plans for hospitals that central governments are currently leading. Consolidation of local social insurance or sickness

funds is also occurring in several countries. In Latvia, for example, the 33 local insurance funds have been consolidated into 8 regional sickness funds, in Estonia the former 17 sickness funds have been merged into 8, and in Hungary the 19 county insurance branches have been merged into a single national insurance fund.

The question that we try to briefly discuss in this section is whether economic analysis provides us with any indication of general validity on the “optimal degree” of decentralization. The short answer to this question is no. Ultimately, the decision to increase the extent of decentralization in the administration of services as well as in the fiscal responsibilities in any given country is a political decision. The major advantage of decentralization is that under certain circumstances it is able to deliver policies more responding to local needs and demands. On the other hand, it can also lead to higher costs, to an irrational duplication of services and facilities, and to wider disparities across regions depending on their level of socio-economic development. The way the decentralization process is implemented is probably more important than the decision to decentralize itself. That is why the empirical evidence on the economic impact of decentralization has not reached conclusive results (Berman and Bossert, 2000). Following are some of the principal factors to consider according to economic theory to think about the optimal extent of decentralization:

- The degree of preferences’ heterogeneity within the population and their geographic distribution. If some communities are characterized by homogeneous preferences, distinct from those of the rest of the country, decentralization can lead to Pareto improvements.
- The territorial extension of the benefits generated by the service under scrutiny. In the case of health services, this criterion would suggest that health services with a local impact (such as social and community services) should be managed locally, whereas services with a nationwide impact (such as tertiary-care services) should be managed centrally.
- Specifically for health insurance, the minimum optimal size necessary to achieve effective risk pooling. If the pool is too small, it is more prone to adverse selection and fixed costs are relatively higher, if it is too large it can become consumer-unresponsive.
- Whenever possible, the level of government in charge of expenditure decisions and that responsible for funding should coincide. Otherwise, local authorities may free ride and utilize a certain service without contributing to it, or they may spend more than the optimal amount because they don’t share any financial burden.

A further element to consider is whether sufficient expertise is available at the local level to effectively perform the tasks that are being decentralized. A flexible approach to decentralization is desirable, given the uneven distribution of administrative expertise across the different regions of each nation.

Distinct issues are raised by fiscal decentralization: as mentioned before, it can stimulate fiscal responsibility and greater fiscal effort at the local level, but it can also exacerbate existing disparities. Thus, it is necessary to guarantee some degree of inter-territorial redistribution of resources (equalizing fiscal capacities) in favor of the poorer regions. Criteria for cross-subsidization must be transparent (such as those based on per capita income and on standardized mortality rates), and must encourage local authorities' fiscal effort. Using these corrective measures, fiscal decentralization can lead to equity and efficiency improvements in the distribution of financial resources.

## **CONCLUSIONS**

As the above pages have shown, restructuring the health systems of FSE so that they can adequately serve all the residents still represents a major challenge. All but a few of those countries are still struggling to re-shape core parts of their health systems, in financing, definition of priorities for public funding, re-organization of services, human resource training. As western industrial countries with less radical health reform agendas and within a much more facilitating social and economic environment have found, such reforms are economically institutionally and politically difficult. However, it must also be clear that ultimately for FSE countries the choice is not between reforming their health sectors and leave them unchanged. Fiscal and other pressures make sectoral change inevitable, removing the option of leaving things as they are. The real choice is whether policymakers will allow change to occur haphazardly or will instead try to orient it rationally.

## References

- Abel-Smith, B., and J. Falkingham. 1996. *Financing Health Services in Krygyzstan: The Extent of Private Payments*. Report for the British Government Know-How Fund (KHF). London School of Economics, London, U.K.
- Balabanova, D. 1999. *Informal Payments for Health Care in Bulgaria*. Observatory Case Study. London School of Economics, London, U.K. Processed.
- Belli, P. 2001. How adverse selection influences the health insurance market, WP. n 2148 World Bank, Washington D.C.
- Berman, P. and T. Bossert, 2000, A Decade of health sector reform in developing countries: what have we learned? Paper prepared for the DDM Symposium, Appraising a decade of health sector reforms in developing countries, March 15<sup>th</sup> Washington DC.
- Bloom, D. and Malaney P., 1998, *Macroeconomic consequences of the Russian mortality crisis*, World Development 26: 2073-2085.
- Bobadilla, L., Costello, C. and Mitchell, F., eds., 1997, *Premature Death in the New Independent States*. Wahington, D.C.: National Academy Press.
- Bobak, M. and M. Marmot, 1996, East-west mortality divide and its potential explanation: proposed research agenda. *British Medical Journal* 312:421-425.
- Chawla, M., P. Berman, and Kawiorska, D. 1998. Financing Health Services in Poland: New Evidence on Private Expenditures, *Health Economics*, 7 (1998): 337–346.
- Chawla, M., Berman, P., Windak, A., Kulis M., 1999, *Provision of Ambulatory Health Services in Poland: a Case Study from Krakow*. International Health Systems Group, Harvard School of Public Health, Boston, Mass.
- Chawla, M. et al., 1999, Enrolment procedures and self-selection of patients: evidence from a Polish family practice, *Health Policy and Planning* 14: 285-290.
- Chawla, M., Berman, P., and D. Dudarewicz, 1998, *Innovations in provider payment systems in transitional economies: experience in Suwalki, Poland*, mimeo
- Chellaraj, C., Heleniak, T. and Staines, V., 1999, *Health Sector Statistics for Former Soviet Union*. World Bank Technical Paper. Social Challenges of Transition Series. Draft
- Chenet, L. et al., *Alcohol and Cardiovascular Mortality in Moscow: New Evidence of a Causal Association*, Journal of Epidemiology and Community Health 52:772-774.
- Cornia, A. and R. Panicchia, 1995, *The demographic impact of sudden impoverishment: Eastern Europe during the 1989-1994 transition*. In: Unicef Innocenti Occasional Papers, Ec. Pol. St. 49.
- Curatio Intern. Foundation, 1997, *Hospital Financing Study for Georgia*.
- Delcheva, E., D. Balabanova, and M. McKee. 1997, Under-the-Counter Payments for Health Care. *Health Policy*, 42:89–100.
- Doll R., Peto R. et al., 1993, *Tobacco and death in Eastern Europe*. In: Bodmer W., Zaridze, eds., Cancer Prevention in Europe. Organization of European Cancer Inst., Lodon:71-97

Dorabawila, V., Lewis, M. and V. Staines, 1999. *Health Status and Private Health Expenditures in the Kyrgyz Republic, 1993 to 1997*. World Bank, Washington, D.C. Processed.

Eberstadt, N., 1999, Russia: Too Sick to Matter?, *Policy Review* 95: 3-27

Ensor, T. and J. Langenbrunner, 2000, *Allocating resources and paying providers*, World Bank (Draft).

Ensor, T. and L. Savelyeva, 1998, Informal payments for health care in the former Soviet Union: some evidence from Kazakhstan, *Health Policy and Planning* 13 (1):41-49.

European Observatory on Health Care Systems. 1999, *Health Care Systems in Transition*. -Bulgaria; -Croatia; -Hungary; -Poland; -Kazakhstan.

Falkingham, J. and I. Hemming, 1999, *Gender, Poverty and Access to Health Care in Tajikistan*, London School of Economics, London, U.K. Processed.

Farmer, P., 1999, Pathologies of Power: Rethinking Health and Human Rights, *American Journal of Public Health*

Feeley, F.G., I.M. Sheiman, and S.V. Shiskin. 1999. *Health Sector Informal Payments in Russia*. Boston University, Boston, Mass. Processed.

Feeley, F.G., V.E. Boikov, and I.M. Sheiman. 1998. *Russian Household Expenditures on Drugs and Medical Care*. Boston University, Boston, Mass. Processed.

Gaal, P., 1999a. *Informal Payment in the Hungarian Health Services*. Observatory Case Study (Draft). Health Services Management Training Center, Semmelweis University of Medicine, Budapest, Hungary.

———1999b. *Under-the-Table Payment and Health Care Reforms in Hungary*. Observatory Case Study (Draft). Health Services Management Training Center, Semmelweis University of Medicine, Budapest, Hungary.

Gedir, G., 1999, Health Care Reform in Kyrgystan: the 'Manas Programme'. *Eurohealth* 4:74-76

Gertler, P. and J. Hammer, 1997, Strategies for Financing Publicly Provided Health Services, in *Innovations in Health Care Financing*, G. Schieber eds., World Bank Disc. Paper n. 365.

Glinskaya, E., J. Langenbrunner, and G. Chellaraj. 1998. *Out-of-Pocket Spending for Health Care in Russia: Who, When, Where, Why*. (Draft.) World Bank, Washington, D.C.

Golladay, F. and K. Schechter, 1998, *Ukraine: Public Expenditure Review for Health and Education*, Manuscript, World Bank.

Ho, T. and el. Project Concept Document, *Russian Health Reform Implementation Project*, Health Service Rationalization, Part IV, International Bank Documents, 1998-1999

Hollo, I., Long, M., and A. Papp, 1998, *Health Care Financing in Hungary*, Health Financing conference, World Bank, Washington DC, October 1998.

Jacob, M., Preker, A. and A. Harding, 2000, *Hospital organization structure in transition economies: incoherent internal and external incentive environments*. (Draft). World Bank. Processed

Klugman J. and G. Schieber, A Survey of Health Reform in Central Asia, *World Bank Technical Paper*, No. 344, 1996

- Klugman, J. and G. Schieber, Health Reform in Russia and Central Asia. In Joan M. Nelson et al. (editors) *Transforming Post-Communist Political Economies*, National Academy Press, Washington, 1997.
- Kornai, J. and K. Eggleston, 2000, *The health sector in Eastern Europe and proposals for reform*, unpublished manuscript.
- Kornai, J. 2000, Hidden in an envelope. Gratitude payments to medical doctors in Hungary, *Discussion Paper Series n. 60*.
- Langenbrunner, J. and M. Wiley, 1999, *Paying the Hospital: payment policies and reforms. Issues, options, early results.* (Draft). World Bank, Processed.
- Leon, D. et al, 1997, Huge Variation in Russia Mortality Rates 1984-94:Artefact, Alcohol, or What?, *The Lancet* 9075: 383-388
- Lewis, M. (Forthcoming.) "Informal Health Payments in Eastern Europe and Central Asia: Issues, Trends and Policy Implications." In *Funding Health Care: Options in Europe*. Mossiales and Saltman, eds. Geneva: WHO.
- Lewis, M., 2000, *Who is paying for health care in Eastern Europe and Central Asia?* Draft, World Bank.
- Maly, I. and P. Veprek, 1999, The Managed Care with a Human Face? (An Implementation of Managed Care Principles to the Czech Health Care System, (Draft).
- Manning W, J. Newhouse, N. Duan, B. Keeler, A. Leibowitz and M. Marquis (1987), Health Insurance and the Demand for Medical Care. *American Economic Review* 77: 251-77
- Mays, J. and M. Schaefer. 1998. *Preliminary Analysis of Risk Pooling Potential in the Health Care Financing System of Georgia*. Actuarial Research Corporation, Annandale, VA. Processed.
- McKee, and Leon, Understanding the Russian Mortality Crisis, *Eurohealth*. 3
- Murray, C. and A. Lopez, 1997, Global Mortality, Disability, and the Contribution of Risk Factors: Global Burden of Disease Study," *The Lancet*, v. 349, May 17, pp. 1436-42.
- Murray C. and A. Lopez, 1994, Global and Regional Cause-of-Death Patterns in 1990. *Bulletin of the WHO, Geneva* 72/3: 447-480.
- Newhouse, J., 1996, Reimbursing health plans and health providers: efficiency in production versus selection. *Journal of Economic Literature* 34:pp. 1236-63.
- Orosz, E. and Hollo, 1999, I. *Hospital Sector in Hungary -The story of unsuccessful reforms.* (Draft) World Bank, Washington, D.C..
- Palu, T., 1999, *Hospital Sector in Transition Baltics Case Study.* (Draft.) World Bank, Washington, D.C.
- Preker, A., A. Harding, and N. Girishankar. 1999. *The Economics of Public and Private Participation in Health Care: New Insights from Institutional Economics.* (Draft.) Paper presented at The Economist Forum, Alexandria, VA, May 4, 1999. World Bank, Washington, D.C. Processed.
- Preker, A., M. Jakab, and M. Schneider. (Forthcoming). "Health Financing Reform in Eastern Europe and Central Asia." In *Funding Health Care: Options in Europe*. Mossiales and Saltman, eds. Geneva: WHO.
- Ruzica, M., et al. 1999. *Moldova Health Reform: Social and Institutional Assessment (SIA).* (Draft.) World Bank, Washington, D.C.

Sari, A., J. Langenbrunner, and M. Lewis. 2000, Affording Out-of-Pocket Payments for Health Care Services: Evidence from Kazakhstan, *Eurohealth* 6,2 (Spring).

Shahriari, H. et al., 1997, *Poverty in Rural Areas in Northern Poland*. (Draft.) World Bank, Washington, D.C.

Shkolnikov, V., 1997, The Russian Health Crisis of the 1990s in Mortality Dimensions, *WP 97*, *Harvard Center for Pop. & Development Studies*.

UNICEF, 1993, *Georgia women's health profile*.

Way, L. 1999. *Decentralization of Social Services in Ukraine*. (Draft.) San Francisco. Processed.

Way, L., Belli, P., Lewis, M. et al., 1999, *Proposal for Research on informal payments in health in ECA.*, (Draft.) World Bank, Washington, D.C..

WHO Regional Office for Europe, 1996, *Health Care Systems in Transition*, Estonia (1996); Poland (1998).

WHO, Regional Office for Europe, Fact sheet No 156, May 1997.

World Bank. 1992. *Viet Nam: Population, Health, and Nutrition Sector Review*. Report No. 10289-VN, East Asia and Pacific Region. World Bank, Population and Human Resources Operation Division. Washington, D.C.

———1993. *World Development Report*.

———1997. *Russian Federation. Health Sector Strategy Note (Draft)*.

———1998a *Health Strategy Paper for Eastern Europe and Central Asia*.

———1999a. *Czech Republic Country Economic Memorandum*.

———1999b. *Georgia: Poverty and Income Distribution*. Vols. I/II.

———1999c. *Russia: TB/AIDS Project. Aide Memoire*1.

———2000a. "Health" Chapter in *Czech Republic: Public Expenditure Review*. (Draft.)

———2000b. *Making Transition Work for Everyone: Poverty and Inequality in Europe and Central Asia*. (Draft.)

———2000c World Development Indicators.

———2001 World Development Indicators.

———2002 World Development Indicators.

Zatonski, W., Hulaniccka B., Tyczynski J., eds., 1996, *Stan zdrowia Polakow* (The health status of the Poles). Monografie Zakladu Antropologii Polskiej Akademii Nauk, Wroklaw.

Zatonski, W., 1996, *Evolution of Health in Poland since 1988*. Warsaw.