

4. HEALTH CARE

Introduction

However varied geographically, economically, politically, or socially, the pre-accession countries may appear, they are united by the endeavour to achieve the status of European Union membership.

The pre-accession countries consist of ten Central and Eastern European countries (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia) plus the three Mediterranean countries of Cyprus, Malta, and Turkey. This division is apparent in many ways. For example, in terms of health care, the countries of central and eastern Europe all possess a social health insurance system, while Cyprus, Malta and Turkey do not (although Cyprus is due to implement a social health insurance system by 2005). This division is also reflected in the countries' historical, economic, political and social backgrounds, as the central and eastern European group¹ of countries have a shared experience of post-socialist governance and recent transition involving democratic and economic liberalization.

To understand the challenges that face these countries in relation to health systems and health status of the countries involved requires exploration of several interconnected issues. This paper will examine health trends, financing of health care (including the collection of funds and trends in health care expenditure), provision of services (including contracting mechanisms and provider payment systems), delivery of services (taking account of integration of primary and secondary care and strategies to improve quality), and certain issues relating to public health infrastructure, pharmaceuticals, mental health, and health of minorities. Due to the variety of topics discussed and multitude of data sources used, it is important to emphasise at the outset the implications of using routine data sources. Differences in national accounting practices, varying definitions, and the lack of a standard data collection method across countries mean that the following information should be approached with caution. All data may not be directly comparable.

An examination of health trends will reveal the commonalities among countries, which have implications for the arrangement of the health systems. Health care expenditure trends will examine the escalating costs experienced by

¹ The exception to the central and eastern European grouping is Slovenia, which was previously part of the former Yugoslavia and not part of the former Soviet bloc.

all countries including public and private resource trends. Informal payments, often distorting the effects of instituted reforms, will also be discussed, with a summary of evidence from different countries. The financing of health systems was the subject of early and radical reforms in central and eastern Europe (CEE). In most countries the intention of the reforms was to shift away from the centralised integrated state model known as the Semashko system to the decentralised and contracted model of social health insurance. This was modelled in part on the basic features of the Bismarck model found in western Europe but significant differences also emerged as the model was adapted to the particular context of CEE. The shift resulted in changes both to the way money was collected and pooled and created a new relationship between purchasers of care and providers. The provision and delivery of services are often linked by the financing arrangements of the system requiring appropriate incentives at all levels of the system to achieve the most efficiency and equity for its users. Finally, certain issues that create particular challenges for health care systems are reviewed.

The decade since the break-up of the Soviet bloc has brought enormous political and socio-economic change. The health sector has not been spared the effects of transition, and the countries emerging from the process have each engaged to varying degrees in health system reform. It is at last possible to examine how this process has unfolded, to identify successes and failures, and to better understand the scale and nature of the remaining challenges. It is now timely to take stock of these experiences and to draw lessons for the future development of health systems in the complex and dynamic process of enlargement of the European Union.

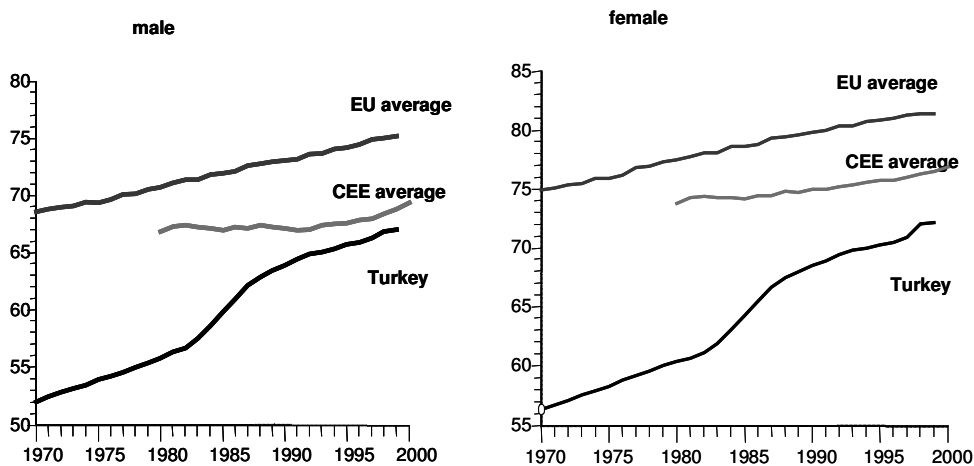
Empowered citizens and improved health and living standards are just two manifestations of reform successes. Despite the successes, negative trends such as rising poverty, real income decline, and rising mortality rates are apparent in some countries. The pre-accession countries face a new and challenging environment, not only in terms of (i) total funding for health care, but also in terms of (ii) the efficiency of their health care services with the funding available and (iii) the development of sufficient government and technical capacity. Responding and adapting to a market society may be a key obstacle, but one that will only develop with time.

The purpose of this paper is to describe and analyse several trends in the pre-accession countries, evaluate experiences, and draw some conclusions. The intent of the authors is not to explain the development of the outcomes thus far, but to consider the outcomes themselves.

4.1. Health trends

For the present purposes the countries fall in to three broad categories: the countries of central and eastern Europe (CEE); Malta and Cyprus; and Turkey. They are differentiated on two grounds. The first is availability of data. Thus, mortality data, and to varying degrees data on morbidity and the determinants of health are available from the countries of central and eastern Europe, Malta and Cyprus (southern part only) but there is very incomplete coverage of Turkey. Consequently, it is not possible to say much about health trends in Turkey beyond rather superficial statements about life expectancy, which has been increasing relatively rapidly in the 1980s but still lags behind the central and eastern European average and, especially, the European Union (EU) average (Figure 1).

Figure 1 Life expectancy in the EU, CEE and Turkey



The second division is between the two Mediterranean candidate countries, where life expectancy at birth is almost the same as the European Union average (Table 1) and the countries of central and eastern Europe, where life expectancy is still considerably below the EU average.

Table 1 Life expectancy at birth in Malta and Cyprus compared with EU and CCEE

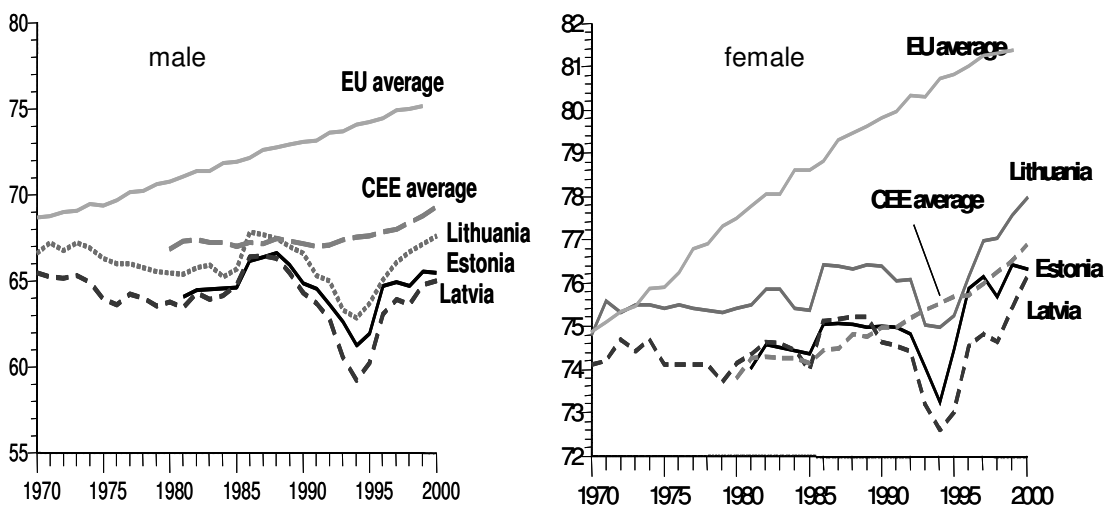
Life expectancy at birth (years) in 1999	EU average	CCEE	Cyprus	Malta
Male	75.11	68.74	75	75.12
Female	81.37	76.5	80	79.38

Data for latest available year. Sources: WHO European and Eastern Mediterranean Regional Offices

Put another way, if Malta and Cyprus were already in the EU they would rank 2nd and 11th, respectively, (of 17) in terms of male life expectancy at birth and 13th and 14th, respectively, in terms of female life expectancy. However it should be noted that while Malta has relatively low death rates from many common causes of death, rates of ischaemic heart disease are relatively high, and would be among the highest in the present EU-15. Nonetheless, the candidate countries facing the greatest health challenges are those in central and eastern Europe, which will be the focus of the remainder of this section.

The first thing to note is that, in health terms, the CCEE are far from homogenous. There are again divisions, between the Baltic States that were part of the Soviet Union, those that were part of the Soviet bloc in the post-war period, and Slovenia, which was part of Yugoslavia. These political divisions are mirrored, to a surprising extent, in patterns of health (Figure 2).

Figure 2 Life expectancy at birth (in years) in the Baltic States, other countries of central and eastern Europe, and the European Union



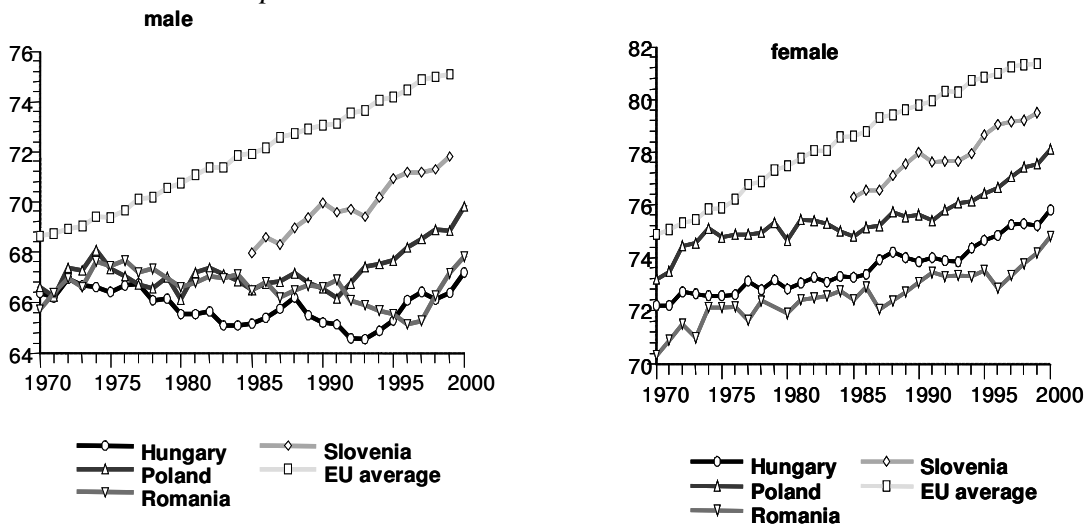
Source: WHO

Thus, the three Baltic States experienced a series of large fluctuations in expectancy from the mid 1980s, which were almost identical to those experienced in other ex-Soviet countries and, in particular, Russia and Ukraine until 1998 since when the three Baltic States have continued to improve while the other ex-Soviet states have once again deteriorated.

The situation in the other CCEE was quite different. Since 1990, the more “western” of the CCEE, such as Poland (Zatonski/ McMichael/ Powles, 1998), Hungary, the Czech Republic (Bobak/ Skodova/ Pisa et al, 1997) and Slovakia have experienced rapid improvements in life expectancy while the more “eastern” ones, such as Romania and Bulgaria, only began to show improvement in the late 1990s. Slovenia occupies a position mid way between the European Union and the other CCEE (

Figure 3).

Figure 3 Life expectancy at birth (in years) in selected central and eastern European countries and in the EU



Source: WHO

The worse health in these countries represents the consequences of years of lost investment in human capital. This is manifest in several ways: the additional costs incurred from medical expenditure on individuals who spend many years in poor health; the opportunity cost of lost lives; and the lost productivity from the loss of a potential worker who would contribute to the economy. Life expectancy within the transition countries ranges from 71.3 years in Romania to 75.2 years in the Czech Republic. However, health-adjusted life expectancy (HALE) (a measure that takes account of both premature death and years spent in ill-health) in the transition countries is significantly lower,

varying from 57.7 years in Latvia to 66.9 years in Slovenia. Although life expectancy has gradually increased for almost all transition countries, it is still below the levels of other EU countries. (Table 2)

Table 2 Population & Health-Adjusted Life Expectancy (HALE) for Pre-Accession Countries.

	Total Population in 2000	Total Population in 2001	Health-adjusted Life Expectancy (HALE) in 2000
Country	(in thousands)	(in thousands)	(years)
TRANSITION COUNTRIES			
Bulgaria	8,170	7,866	63.40
Czech Republic	10,273	10,260	65.60
Estonia	1,370	1,377	60.80
Hungary	10,024	9,917	59.90
Latvia	2,373	2,406	57.70
Lithuania	3,696	3,689	58.40
Poland	38,646	38,577	61.80
Romania	22,435	22,408	61.70
Slovakia	5,401	5,404	62.40
Slovenia	1,977	1,986	66.90
OTHER PRE-ACCESSION COUNTRIES			
Cyprus	755	759	66.30
Malta	386	392	70.40
Turkey	65,293	67,632	58.70
REGIONAL AVERAGES			
EU average	376,948	376,977	70.12
CEE average	120,859	120,867	62.51
Pre-accession countries' average	13,138	13,283	62.62

Sources: European Health For All database, WHO Regional Office for Europe, Copenhagen, Denmark, 2002.; World Health Report 2001, WHO, Geneva, Switzerland, 2001; EUROSTAT, 2002.

Note: Health-adjusted life expectancy is a summary measure of the equivalent number of years in full health that a newborn can expect to live based on current rates of ill-health and mortality.

4.2. Patterns of mortality

Mortality can be disaggregated in many ways. Looking first at gender, it is apparent that men have been especially vulnerable, in all of the CCEE, but in

particular in the Baltic States (McKee, Shkolnikov, 2001). Another way of looking at the data is by age. Deaths among infants and young children have fallen steadily throughout the 1970s and 1980s, a decline that has accelerated in the 1990s. There are a few exceptions, for example Romania, as a consequence of the policy adopted in the late 1980s of giving inadvertently HIV contaminated blood transfusions to many undernourished children who had been abandoned in “orphanages” (Kozintez, Matusa, Cazacu 2000). Death rates among older people are slightly higher in the “eastern” CCEE, Romania and Bulgaria, but have fallen in the “western” countries, such as Poland and the Czech Republic. However the greatest impact has been on deaths in early middle age. Among the CCEE, deaths in this age group increased steadily throughout the 1980s. Subsequently, each country has experienced an improvement, but beginning at different times. In Poland and the Czech Republic it began almost at once while in Hungary and Bulgaria it only started in the mid 1990s. In Romania it was delayed until 1997. This age group was also affected most in the FSU, with their deaths driving the large fluctuations in overall mortality (Leon, Chenet, Shkolnikov et al. 1997).

These changes have led to overall death rates among middle-aged men being about 2.5 times higher in the CCEE than in western Europe. Among women the differences are somewhat smaller and do not exhibit the peak at middle age seen among men. Death rates at older ages among both men and women and in the CCEE are about twice those in western Europe.

The causes of death underlying these changes are extremely complex and the following description is, of necessity, a simplification. In the CCEE, most countries experienced a short-lived increase in deaths at the time of transition, largely due to deaths from external causes, especially traffic accidents, which have subsequently declined steadily during the remaining years of the 1990s. (Winston, Rineer, Menon, et al. 1999). Later sustained improvements in life expectancy, beginning at different times in the 1990s, have largely been due to falls in cardiovascular disease, in some cases such as Poland falling quite steeply, although in some parts of southern Europe, where rates were previously extremely high, a decline in deaths from cirrhosis has also contributed.

To understand the very different trends in the Baltic States it is necessary to go back to events in 1985, when the Secretary General of the Communist party of the Soviet Union, Mikhail Gorbachev, implemented an initially highly effective and wide ranging anti-alcohol campaign (White S, 1996). This led to an immediate improvement in life expectancy, due largely to a decline in cardiovascular diseases and injuries. Smaller contributions were made by a range of causes known to be associated with alcohol, including acute alcohol poisoning and pneumonia. Importantly, other major causes of death, such as cancer, were unaffected. In the subsequent large fluctuations in mortality the

same causes have been implicated, pointing to a major role for alcohol in the changing pattern of mortality in the Baltic States (McKee M, Shkolnikov V, Leon DA, 2001).

4.3. The immediate causes

A few specific conditions emerge as major causes of the health gap with western Europe: cardiovascular disease, injuries and violence, cancer, and some alcohol-related diseases such as cirrhosis.

4.3.1. Cardiovascular disease

Deaths from cardiovascular disease are also much more common in eastern Europe than in the west. In central and eastern Europe this clearly reflects high levels of many traditional risk factors, such as a diet rich in saturated fats and high rates of smoking. Differences in access to and quality of healthcare for cardiovascular disease may also explain some part of the differences in mortality for this condition. In Poland there has been a marked decline in deaths from cardiovascular disease since the transition that is believed to reflect a change in the composition of fat in the diet (Zatonski WA, Willet WC) following removal of subsidies and the opening of the retail sector to international trade.

Trends in cardiovascular disease in the Baltic States, as in other parts of the former Soviet Union have, however, presented epidemiologists with more of a puzzle. On several occasions death rates have changed substantially from one year to the next and death rates are especially high among the young. Deaths are also more likely to be sudden,⁴ with many victims showing little evidence of coronary atheroma at post mortem.⁵ The conventional risk factors, such as lipid levels, and physical activity, identified in western epidemiological research, have little predictive value.⁶ There is also evidence of differences in biochemical mechanisms.⁷

The emphasis, in western epidemiology, on the role of lipids has distracted attention from the other elements of thrombosis, first described by Virchow over a century ago.⁸ These include changes in vascular endothelium, permitting lipid to accumulate, and changes in platelet and fibrinolytic activity, influencing the propensity of blood to clot.⁹ Eastern European diets are characterised by

⁴ Laks, Tuomilehto, Joeste et al. 1999

⁵ Vikhert, Tsiplenkova, Cherpachenko 1986

⁶ Perova, Oganov, Williams et al. 1995

⁷ Shakhov, Oram, Perova et al. 1993

⁸ Virchow, 1856

⁹ West, 2001

large quantities of fat and very low levels of fruit and vegetables.¹⁰ Correspondingly, antioxidant activity in blood, which is determined primarily by intake of micronutrients, is extremely low¹¹. While changes in lipids are important, these other mechanisms may provide an explanation for rapidity of the reduction in cardiovascular deaths seen in some countries such as Poland and the Czech Republic.

However these mechanisms cannot explain all of the observed effects, and in particular the much higher rate of sudden cardiac death among young men. Here it is likely that alcohol is playing an important role. In all of northern Europe, but especially in the Baltic States, alcohol is typically drunk as vodka and in binges,¹² unlike the more steady consumption in southern and western Europe. Reanalysis of studies looking at the cardiovascular effects of alcohol consumption found clear evidence that episodic heavy drinking, identified in various ways including frequent hangovers or getting into trouble with the police or frequent absence from work for alcohol related disorders, was consistently associated with a substantially increased risk of, especially, sudden cardiac death.¹³ Other work has disentangled the physiological basis for these findings, showing very different responses of lipids, blood clotting and myocardial function to binge drinking and regular moderate consumption.¹⁴

On the basis of what is known about the aetiology of cardiovascular disease in the west it is, however, unlikely that these explanations will be able to account for all of the changes that have been observed. Work from the Whitehall study, in particular, has highlighted the importance of psychosocial factors and there is also some evidence from this region to link stress and lack of control over events with cardiovascular disease.¹⁵

4.3.2. Injuries and violence ('external causes')

All of the CCEE experienced a transient, but substantial increase in deaths from injuries, especially road traffic accidents (Figure 4). This was especially marked in the Baltic States. Although death rates have fallen back considerably they remain much higher than in the EU. While all causes of injury are more common, the gap is particularly great for homicide and suicide (Figure 5). Other external causes of death that are very much more common than in the EU are drowning and deaths in fires.

¹⁰ Pomerleau, McKee, Robertson et al. 2001

¹¹ Bobak, Brunner, Miller 1998 et al. 1998

¹² Bobak, McKee, Rose et al. 1999

¹³ Britton, McKee, 2000

¹⁴ McKee, Britton, 1998

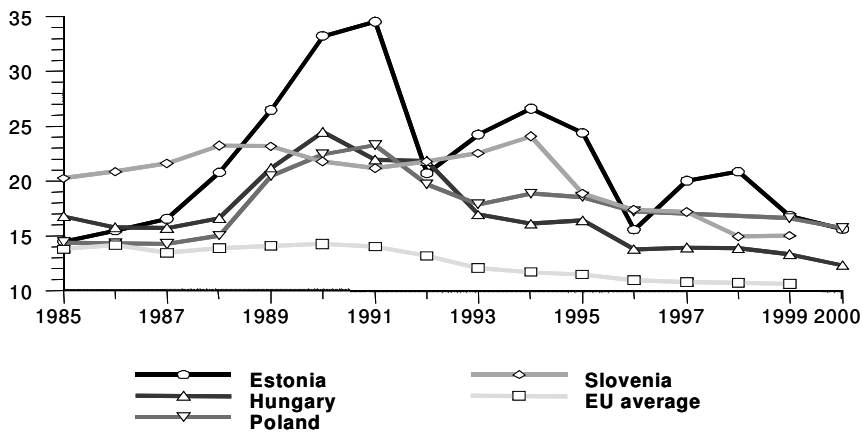
¹⁵ Bobak M, Marmot M, 1996

Clearly many factors contribute to these deaths. In the case of road traffic injuries they include poor quality of roads and lax enforcement of speed limits. However it is also clear that alcohol plays an important role.

Death rates from unintentional injuries reflect many factors related to risk and its perception, and to the environment. Throughout the CCEE there have been few of the design features that enhance safety in the west, although this is now changing. In some cases effective health care could save lives but it is either unavailable or of poor quality, especially in rural areas suffering from poor communications and transport infrastructure.

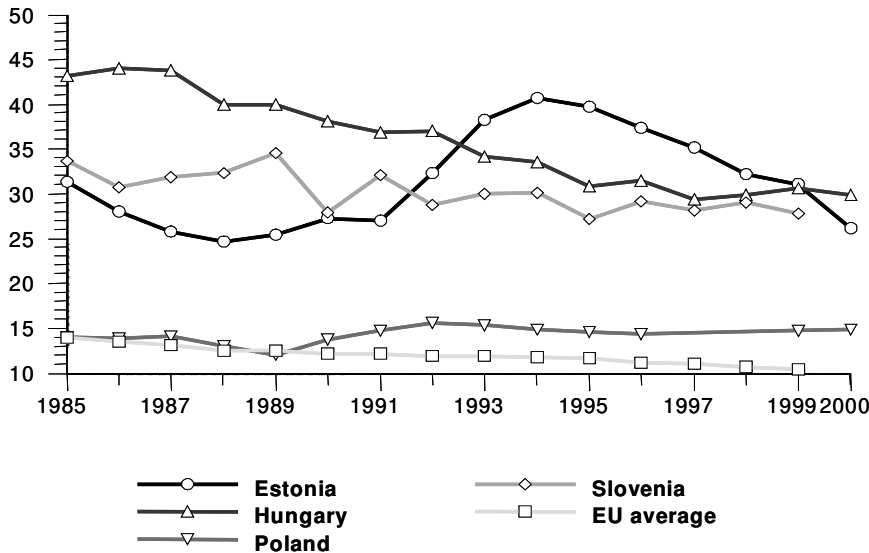
Childhood injuries are an important contribution to the overall injury burden in both EU and candidate countries. From 1991 to 1995, had childhood injury death rates been at the EU average level (UNICEF, 2001), there would have been over 2000 fewer deaths per year among children aged 1 to 14. This does not include Malta, Cyprus and Turkey.

Figure 4 *Death rates (per 100,000) from road traffic accidents in selected countries*



Source: WHO (2002)

Figure 5 Death rates (per 100,000) from suicide in selected countries



Source: WHO (2002)

Within this high burden of disease there is a large East-West gap in injury mortality rates. A study of figures of childhood injury mortality for 1991-1995 showed that all candidate countries (data not including Turkey, Malta and Cyprus) had much higher injury mortality rates than all EU current member states with the exception of Portugal. Portugal ranked about midway in the ten candidate countries reviewed. At the lowest end of the spectrum, 5.2 children per 100,000 children aged 1-14 died of injuries in Sweden. At the opposite end, in Latvia the figure was 38.4 (a rate of one child in every 200 between his or her first and fifteenth birthdays).

4.3.3. Cancer

Cancer covers a multitude of disease each with their own risk factors; here we consider two examples, lung and cervical cancer. Smoking has been extremely common among men in all of eastern Europe,^{16 17} possibly encouraged by a shared experience of military service as teenagers. Consequently, death rates from lung cancer among men are extremely high, in some cases reaching levels never previously observed anywhere in the world.¹⁸ Interestingly, death rates from lung cancer are presently falling in the Baltic States but cohort analysis in Russia, which exhibits the same pattern, shows that this will be short lived,

¹⁶ Pudule, Grinberga, Kadziauskiene et al. 1999

¹⁷ McKee, Bobak, Rose et al. 1998

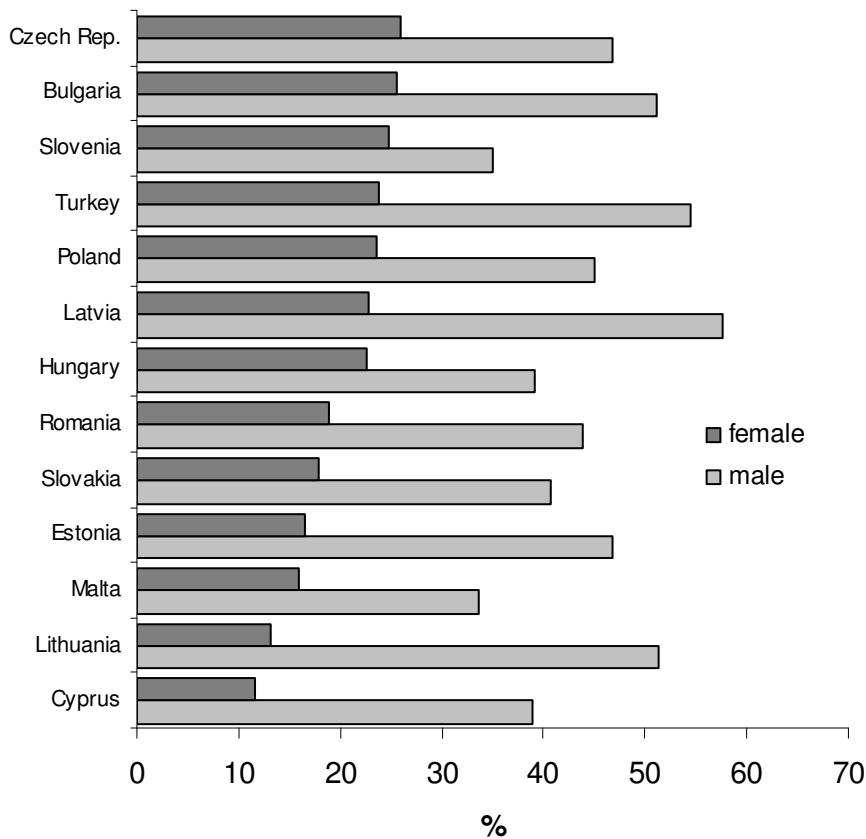
¹⁸ Zatonski, Smans, Tyczynski et al. 1996

reflecting transiently lower levels of commencing smoking in the austere period of the late 1940s and early 1950s.¹⁹

In contrast, smoking has always been relatively uncommon among women. This is now changing, and female smoking rates, especially among young women in major cities, are increasing rapidly, encouraged by aggressive advertising by western tobacco companies (

Figure 6).²⁰ Consequently, lung cancer rates among women can soon be expected to start rising.²¹

Figure 6 Smoking rates in candidate countries, 2002



Source: Eurobarometer (2002)

¹⁹ Shkolnikov, McKee, Leon et al. 1999

²⁰ Hurt, 1995

²¹ Bray, Brennan, Boffetta, 2000

The policy response to tobacco was initially weak but more recently several countries, in particular Poland,²² Hungary and the three Baltic States, have enacted anti-tobacco programmes that are stronger than those in many EU countries.

Cervical cancer is also somewhat more common than in the west, a finding that is unsurprising given the high rates of sexually transmitted diseases and, until recently, the difficulty in obtaining barrier contraceptives.²³ Unfortunately, the few effective cervical screening programmes are rare exceptions and screening is often opportunistic, with little quality control, and generally ineffective.

In brief, the pattern of cancer mortality in the eastern European candidate countries is complex and changing. In the future, it is likely that deaths from some types, such as stomach cancer, will continue to decline while others, such as breast and prostate, will come closer to those in the west.

4.3.4. Infectious diseases

As in the west, acute infectious disease is no longer one of the leading causes of death. This reflected the high level political commitment to disease control during the twentieth century, following Lenin's famous statement in response to outbreaks of typhus that "If communism does not destroy the louse, the louse will destroy communism". The Soviet model was especially successful in reducing vaccine preventable diseases, in part because of its pervasive system of monitoring and use of compulsion, although a breakdown of control systems in some countries following independence has allowed them to re-emerge.²⁴ In contrast, the lack of investment in infrastructure, with many rural hospitals lacking hot water even in the early 1990s, meant that other aspects of infection control were poor. This was exacerbated by adherence to outdated concepts of disease transmission and surveillance.

The other infectious diseases causing concern are sexually transmitted diseases (STDs), HIV and tuberculosis. Rates of STDs rose rapidly in many countries in the 1990s. They have since fallen although there are concerns as to whether this reflects a true reduction in incidence or a decline in notification, as treatment is increasingly being provided privately.²⁵ Rates of HIV infection are still low, in global terms, but are rising extremely quickly in many parts of the CCEE.²⁶ At present, spread is primarily due to needle sharing among addicts but

²² Fagerstrom, Boyle, Kunze et al. 2001

²³ Levi, Lucchini, Negri, Franceschi et al. 2000

²⁴ Markina, Maksimova, Vitek et al. 2000

²⁵ Platt, McKee, 2000

²⁶ Dobson, 2001

the epidemic is beginning to move into the wider population by means of sexual spread.

Rates of tuberculosis have also increased markedly in the 1990s in some countries, in particular the Baltic States. Rates are especially high among the large prison population, where conditions are highly conducive to rapid spread and where treatment is often inadequate.²⁷ A matter of particular concern is the high rate of drug resistant disease.²⁸ The co-existence of HIV and resistant tuberculosis poses enormous challenges for the future, and which have yet to elicit an effective response.

Finally, changes in land use, related to the adoption of new agricultural practices and a relaxation of earlier restraints on planning is contributing to a shift in patterns of zoonotic infections, such as an increase in leptospirosis in Bulgaria²⁹ and in tick-borne encephalitis in the Baltic states³⁰.

4.4. Beyond mortality

This section has focused almost exclusively on measures of mortality as they are available over many years and death is unambiguous, even if ascertainment of the precise cause may sometimes be difficult. Measures of morbidity are more problematic and traditionally focus on notifications of infectious diseases. There are few examples of the diseases registries established in some western countries that would allow tracking of change, although as will be described later, some examples are now emerging.

There is, however, some evidence on self-rated health and long standing disabilities, derived from a variety of household surveys. Thus, the percentage of the population reporting a long-standing illness is relatively high in the CCEE, with rates in Cyprus and Malta similar to those seen in the EU (Figure 9).

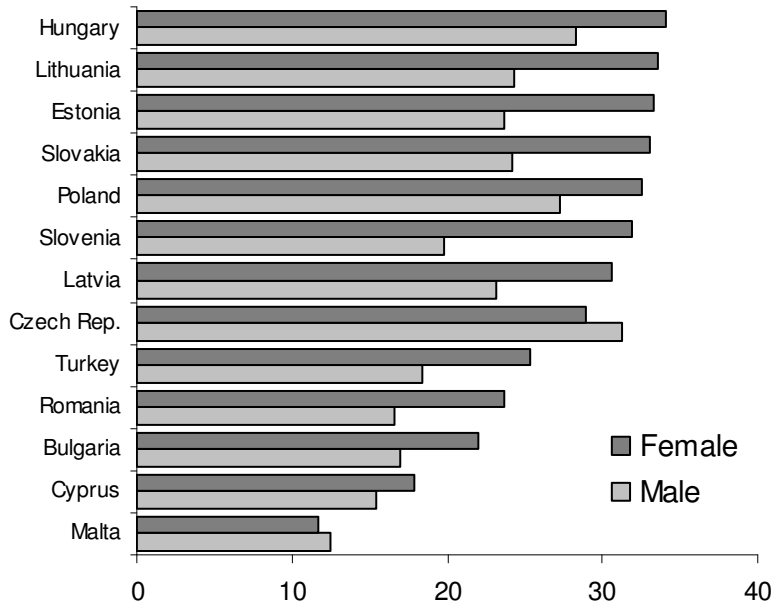
²⁷ Stern, 1999

²⁸ Farmer, Kononets, Borisov et al. 1999

²⁹ Stoilova, Popivanova, 1999

³⁰ Randolph, 2001

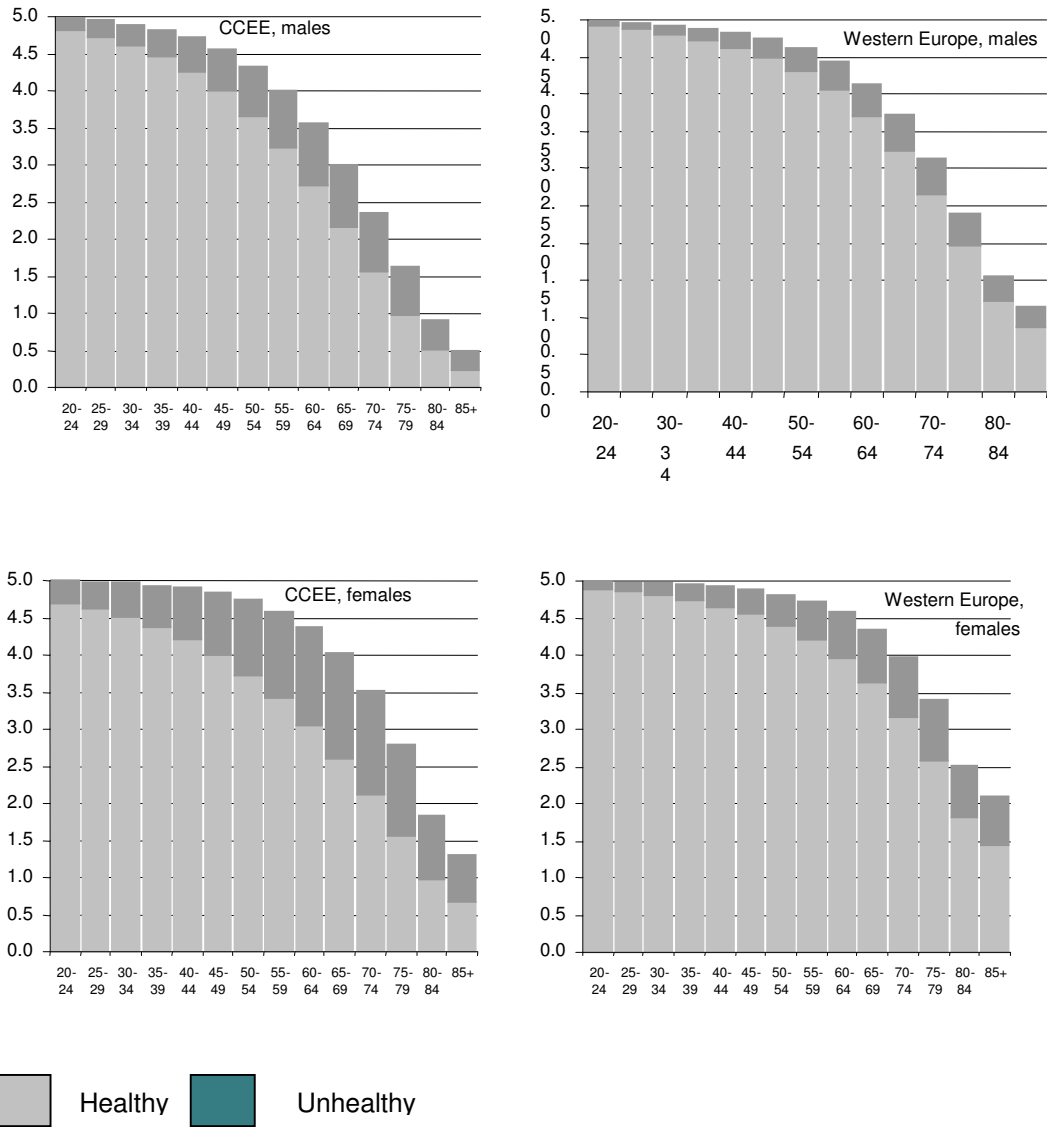
Figure 7 Percentage of the population reporting a long-standing illness is relatively high in accession countries



Source: Eurobarometer 2002

Information on self-rated health can be combined with mortality data to estimate healthy life expectancy. Figure 8 shows survival curves for men and women in a selection of EU and CCEE countries (data from the World Values Survey). This shows that it is not only is life expectancy that is shorter in the CCEE but also healthy life expectancy, or years lived in good health.

Figure 8 Healthy life expectancy in CCEE and western Europe



Source: Andreev, Shkolnikov & McKee, unpublished.

One of the most striking features of mortality in the CCEE is the way that men have been affected much more than women. Much of this can be explained in differences in lifestyle, in particular use of alcohol and tobacco. This is consistent with research on those rare populations where the gender gap in mortality is small.^{31 32}

³¹ Leviatan, Cohen, 1985

³² Jedrychowski, Tobiasz-Adamczyk, Olma et al. 1985

Figure 7 and Figure 8 show, when measures such as self-reported health or long-standing illness are considered, surviving women fare rather worse than men.

4.5. The underlying factors

Lifestyle choices are heavily influenced by social circumstances and they can only be understood fully by considering the context in which they are made. The social forces driving trends in mortality in these countries are still inadequately understood, although some parts of the picture are clear. Those groups that have been worst affected have been so as a result of increasing deaths from external causes and cardiovascular diseases.

Research in several countries undergoing transition from communism in the 1990s shows that the most vulnerable are those who have experienced the most rapid pace of transition,³³ and who are least able to draw support from social networks.³⁴ The individuals most affected have been men, with low levels of education,³⁵ low levels of social support (such as the unmarried³⁶) and low levels of control over their lives.³⁷

These findings paint a picture of societies in which young and middle-aged men in particular have faced a world of social and economic disruption that they were poorly prepared for.³⁸ For many, the opportunities are constrained by low levels of education and a lack of social support.

4.5.1. The contribution of health care

There is now considerable evidence that timely and effective health care interventions have played an important role in reductions in mortality in western countries.³⁹ Research using the concept of avoidable mortality, has suggested that about 25% of the mortality gap between east and west Europe between birth and age 75 could be attributed to inadequacies in medical care in 1988,⁴⁰ with deaths from avoidable causes declining at a slower rate in the east than in the west.

³³ Walberg, McKee, Shkolnikov, et al. 1998

³⁴ Kennedy, Kawachi, Brainerd, 1998

³⁵ Shkolnikov, Leon, Adamets et al. 1998

³⁶ Hajdu, McKee, Bojan, 1995

³⁷ Bobak, Pikhart, Hertzman et al. 1998

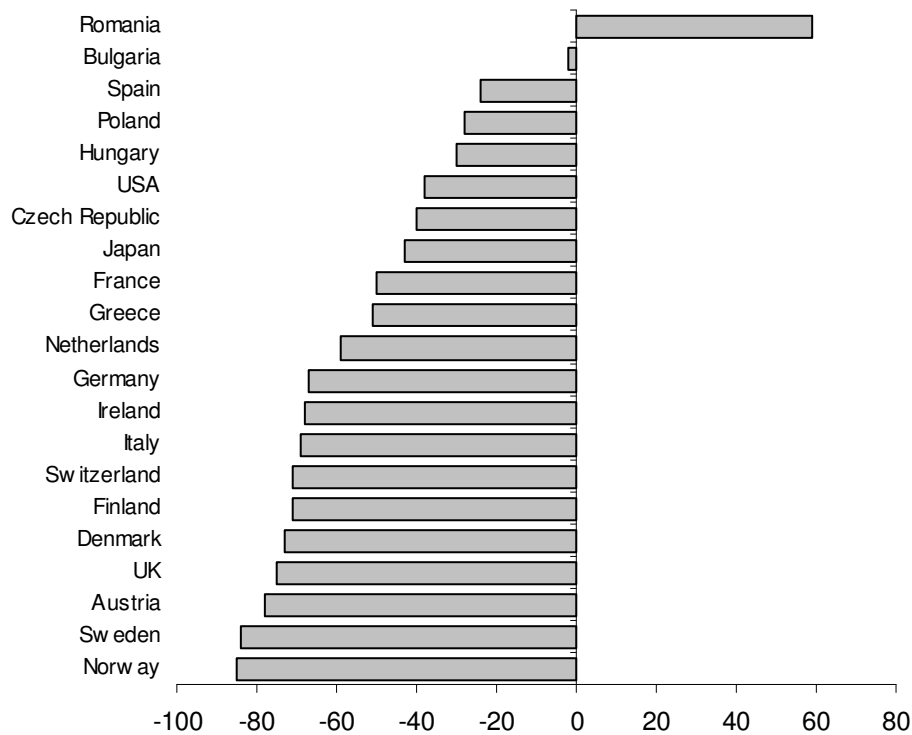
³⁸ Cockerham, 2000

³⁹ Mackenbach, Looman, Kunst et al. 1988

⁴⁰ Velkova, Wolleswinkel-van den Bosch, Mackenbach, 1997

While the specific impact of health care on measures of population health is often difficult to detect, there are several well-documented examples of where this has been identified.^{41 42} Research on neonatal mortality has sought to separate the impact of health care from broader social determinants, with the former assessed by birth-weight specific survival and the latter by the overall birth weight distribution. In the Czech Republic⁴³ there were considerable improvements in birth-weight specific mortality, and by implication, the quality of care. As a consequence, closing the remaining gap with the EU will require policies that address the social determinants of low birth-weight.

Figure 9 Change in deaths from testicular cancer age 20-44: 1975-9 to 1995-9



Source: Levi et al, 2001.

Another area where the impact of health care can be identified is cancer survival. Research from the 1980s and early 1990s showed that cancer survival was somewhat lower in CCEE than in the west, almost certainly reflecting the lack of access, at that time, to the then emerging expensive new

⁴¹ Nolte, Scholz, Shkolnikov et al. 2002

⁴² Becker, Boyle, 1997

⁴³ Koupilová, McKee, Holčík, 1998

chemotherapeutic drugs. However, in the 1990s, there have been considerable improvements, as can be seen from the case of testicular cancer (Levi, La Vecchia, Boyle, 2001), which now has a high cure rate in western countries. Figure 9 shows the change in death rates between the mid 1970s and mid 1990s. The apparent deterioration in Romania is likely to be an artefact due to improved case recognition. However the decline in mortality began much later in the CCEE countries and, at least up to the mid 1990s, had been rather slower than in the west.

4.2. Financing health care ⁴⁴

A number of tools have been developed to facilitate the analysis of health care financing. One of these identifies distinct functions within the health care system: revenue collection, pooling, purchasing and provision ⁴⁵ (Figure 10). Revenue collection refers to the process of mobilising resources, usually from households or corporate entities but also external donors. Pooling refers to the spreading of financial risk across the population or a sub-group of the population through the accumulation of prepaid health care revenues. This facilitates solidarity, primarily between the healthy and sick and, depending on the method of funding, between the rich and the poor. Purchasing is the process of obtaining services from providers on behalf of the covered population. Provision of services and how these are delivered, and by whom, are discussed later in this paper.

For each of these functions it is possible to identify certain policy issues. These are outlined in Table 3 ⁴⁶. Decisions on each of these policy issues will shape the overall structure of the health care financing system. For example the equity of the financing system will depend both on the level and distribution of the contributions. Equity of access will depend on who has access and to what services as well as on the extent and nature of user charges and informal payments. Efficiency will be influenced largely by the extent of pooling and the methods of provider payment. Depending on the extent of decentralisation and fragmentation in the system these functions and the associated decisions may be carried out by different bodies. For example, central government might decide the contribution rate and the proportion to be paid by the employer and the employee. However, collection of the contributions may be the responsibility of regional branches of the health insurance fund.

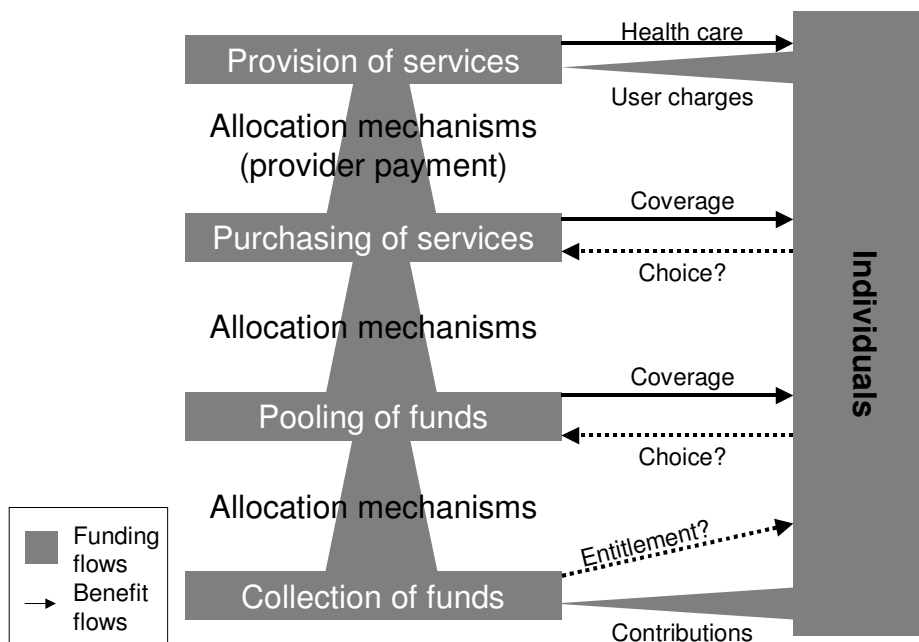
⁴⁴ This section draws from Dixon A. Langerbrunner J. and Mossialos E. Facing the challenges of health care financing. USAID conference, Washington D.C. 29-31 July 2002.

⁴⁵ Kutzin, 2001

⁴⁶ Preker, Biaza, Jakab et al. 2001

The financing of health systems was the subject of early and radical reforms in central and eastern Europe (CEE) and continues to be so in all pre-accession countries. In most CEE countries the intention of the reforms was to shift away from the centralised integrated state model of Semashko to the decentralised and contracted model of social health insurance. This was modelled in part on the basic features of the Bismarck model found in Western Europe but significant differences also emerged as the model was adapted to the particular context of CEE (Table 4). In seven out of 10 CEE countries SHI was administered by an agency other than the government itself. This could be through a National Health Insurance Fund which would be in charge of setting and collecting and distributing funds. However, In Estonia, Hungary, Lithuania and Slovenia fees and benefits are set by the government or the government intervenes at some point through the process of administration.

Figure 10 Functions of health system financing and population links



Source: Kutzin, 2001

Table 3 Policy issues related to different financing functions

Financing function	Related policy issue
Collection of funds	<ul style="list-style-type: none"> • How much money to collect and from whom? • Who and what to cover? • How to pool resources? • How to allocate resources to purchasers? • From whom to buy and how to buy? • At what price to buy and how to pay?
Pooling of funds	
Purchasing of services	

Source: Adapted from Preker et al, 2000

Table 4 Shift Toward the Bismarck Model of Social Insurance

Country	Year SHI Law Passed	Year Contribution Collection Began	Autonomy of health insurance fund(s)	Contributions and benefits set by the Government
Bulgaria	1998	1999	Yes	No
Czech Republic	1990	1993	Yes	No
Estonia	1991	1992	No	Yes
Hungary	1991	1991	No	Yes
Latvia	1993	1993	Yes	No
Lithuania	1991	1991	No	Yes
Poland	1997	1999	Yes	No
Romania	1997	1999	Yes	N/A
Slovakia	1994	1994	Yes	N/A
Slovenia	1992	1992	Yes	Yes

Sources: Country Reports, 2002.; WHO, Health Care Systems in Transition. Czech Republic (Copenhagen: WHO Regional Office for Europe 2000); WHO, Health Care Systems in Transition. Malta (Copenhagen: WHO Regional Office for Europe 1999); WHO, Health Care Systems in Transition. Slovenia (Copenhagen: WHO Regional Office for Europe 2002); ILO at <http://www.ilo.org/public/english/region/eurpro/geneva/reports/2001/cyprus.htm> and http://www.ilo.org/public/english/region/eurpro/mdtbudapest/newsletr/93-4/nl4_51.htm; Social Security Administration, 1999; Ministry of Development and Prognosis at http://www.andr.ro/engleza/investment/business/content/5_3_social_insurance_system.htm.

The shift resulted in changes both to the way money was collected and pooled and created a new relationship between purchasers of care and providers. It was intended to earmark or protect health funds, prompt greater efficiency and responsiveness, and signal a move away from the perceived shortcomings of the past. It often took place, however, against a backdrop of socioeconomic and institutional upheaval. In addition, legislative reform was not always matched by concrete change on the ground and the objectives set out in policy were not

fully or even partially attained in some cases. Cyprus, Malta and Turkey, although not undergoing the drastic economic and political upheaval the CEE candidate countries are experiencing, have assumed significant health system changes as well.

The candidate countries face a new and challenging environment, not only in terms of (i) total funding for health care, but also in terms of (ii) the efficiency of their health care services with the funding available and (iii) the development of sufficient government and technical capacity.

1.1 Collection of funds

Prior to the transition to market economies, revenue for health care was generated mainly from state-owned enterprises. Private sources were negligible except for informal payments to providers. Like in tax-financed systems, health competed with other areas of public spending and expenditure on health was the outcome of political negotiations and reflected priorities (these tended not to favour health which was seen as an unproductive sector). During transition two new sources of funding emerged: social health insurance contributions and out of pocket payments (both official user charges and informal payments)⁴⁷. There were a number of reasons why many of the countries in CEE shifted to social health insurance:

- Break the monopoly of government over the ownership and financing of health services;
- Increase the responsibility of individuals for their own health and the financing of health care making funding of health care apparent to its users and contributors;
- Improve efficiency by making health care providers more accountable for the use of resources⁴⁸;
- Give responsibility for health care to organisations independent from government (mainly driven by ideological concerns about the role of the state).

Despite the switch to social insurance contributions, general tax revenues continued to play a significant role in health care funding in many countries. Voluntary health insurance was intended to develop as a supplementary source of revenue. However, the market in private health insurance remains small in most countries and does not contribute significantly to health care expenditure. Private funding, in the form of informal payments for health services within the

⁴⁷ Preker, 2002

⁴⁸ Chinitz, 1997

public health care sector, is much more significant. However, the level and scope of these payments varies significantly between countries.⁴⁹

4.2.1. Sources of funding

The source of funding provides a gauge of the level of control that the state can exercise in the allocation of health care resources (Dixon, 2001). The greater the proportion of public expenditure as total expenditure, the more likely the state can intervene in the distribution of resources. This is an important factor in the reforms of central and eastern European countries as the devolution of responsibilities may require state intervention at a later stage should a level of devolution be inadequate to handle some responsibilities. This also allows the state to institute cost-containment measures or to overcome financial barriers to treatment.

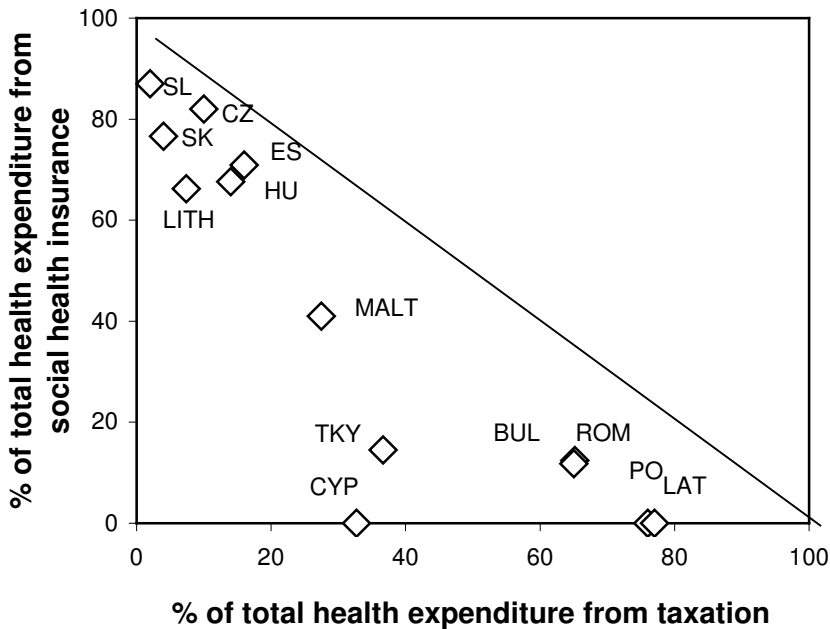
The main sources of revenue for health care are taxes, social insurance contributions, voluntary insurance premia and user charges (formal and informal). Most countries rely on a mix of these sources. Taxes are compulsory for the whole population and are levied by government. Social insurance contributions are compulsory for all or some of the population; they are kept separate from other government revenues and are usually managed by a fund or funds independent of government. In CEE countries the term social insurance is often used to describe payroll taxes which are in fact levied by government and managed by a fund which government largely controls. However for the purposes of this paper we will use the term social insurance to include payroll taxes.

In terms of equity, direct taxes (i.e. levied on individuals, households or firms) are usually set progressively, that is the higher the income the higher the proportion paid. In contrast indirect taxes (i.e. levied on goods and services) are regressive because those on lower incomes spend a greater proportion of their income on consumption. Social insurance contributions are usually levied proportionately to income. Where an income ceiling is applied, above which income is exempt from contributions, social health insurance becomes mildly regressive. Furthermore, because contributions are levied only on earned income (not on profits or income from investments and savings) they place a heavier burden on those with lower incomes. In contrast private health insurance and user charges are higher for those in greatest need, thus relating how much you pay to how ill you are (or are likely to be). In terms of efficiency, taxation is associated with strong expenditure control, it draws on a broad revenue base and is administratively efficient. Depending on the organisation of social insurance, expenditure control might be strong if there is a single fund or

⁴⁹ Lewis, 2002

government caps the overall budget or sets contribution rates. Social insurance draws only on earned income and therefore adds to the cost of labour with a potentially negative effect on economic growth. If separate systems of collection are implemented this will add to administrative costs. Both social insurance and taxation in theory are associated with access free at the point of use and near universal coverage. Whereas, user charges and voluntary health insurance relate access to ability to pay (Mossialos, Dixon, Figueras et al. 2002). Nevertheless, user charges have some appeal for low and middle-income countries as a way of mobilizing additional revenue: first, because establishing prepayment health funding is difficult in a dire economic environment; and second, because of the pre-existing informal payments. In these countries, the revenue base for employment-related contributions or taxation is extremely limited because unemployment is high, a high proportion of labour is in agriculture, self-employed or informal and the informal economy is large. Charging is therefore one of the few ways of mobilizing any revenue at all. However, substantial evidence indicates that fees disproportionately affect the rural poor.

Figure 11 Percentage of total expenditure on health from taxation, social health insurance and other sources (includes voluntary health insurance and out-of-pocket payments) in the EU accession countries in 2000 or latest available year.



Key: BU: Bulgaria, CYP: Cyprus, CZ: the Czech Republic; ES: Estonia; HU: Hungary; , MALT: Malta, LAT: Latvia; LITH: Lithuania, PO: Poland; ROM: Romania; SK: Slovakia; SL: Slovenia, TKY: Turkey.

Figure 11 shows the relative importance of taxation and social health insurance in the countries of CEE towards the end of the 1990s⁵⁰. The distance from the diagonal represents the share of private funding ((out-of-pocket expenditure and voluntary health insurance)⁵¹. There were three countries which funded health care predominantly from taxation: Bulgaria, Latvia, Poland, and Romania. Six countries relied predominantly on social insurance contributions: The Czech Republic, Estonia, Hungary, Slovakia, and Slovenia.

4.2.2. Informal payments

In the early 1990s, during the transition period in CEE countries, staff salaries were very low and often delayed. Instead, money was sought from payment requests and were shifted to patients by staff. In a positive sense, informal payments to health staff during the economic difficulties allowed healthcare staff to remain in health facilities and provide healthcare during this time of economic difficulty. However, demands for the payment requests also resulted in the excluded and some of those were unable to pay. The most severely affected were typically the poorest or those chronically ill.

Out-of-pocket payments are made in the public sector in some countries despite not being officially endorsed, and informal payments made by patients and families to supplement formal coverage are common. Informal payments take a number of forms and may exist for a number of reasons. They range from the *ex ante* cash payment to the *ex post* gift in-kind. These payments or gifts may be part of the culture, may be due to the lack of a cash economy, a lack of finances to pay health care workers and a lack of drugs and basic equipment to treat patients or due to weak governance. At their worst they may be a form of corruption, undermine official payment systems, and reduce access to health services (Ensor, Duran-Moreno, 2001)

In CEE, they have come to represent a large proportion of total health expenditure as other sources of revenue have collapsed. These payments exist for several reasons⁵².

⁵⁰ These data is likely to have changed. For example since 1998 Poland has implemented a social health insurance scheme.

⁵¹ However, informal payments which are significant in most accession countries are not included.

⁵² Lewis, Langenbrunner, Rose et al. 2000

- *Lack of financial resources in the public system.* Without payment, patients cannot obtain basic supplies such as drugs or bandages needed for treatment. Staff rely on payments to supplement their small or nonexistent public salaries.
- *Lack of private services.* The private sector is not fully developed, so patients with money have fewer options to obtain services elsewhere. In western Europe physicians may legally work across the public-private divide, shifting patients to their private practice. Treating patients for a 'private' payment in the public sector may arise where private practice does not exist.
- *Desire to exercise consumer leverage over providers.* No third party is involved in the transaction, which makes the provider accountable to the patient. This seems to be an important factor in the level of informal payments in CEE countries as well as in Cyprus and Turkey and may explain the low demand for voluntary health insurance.
- *Cultural tradition.* Southern European, CEE countries have a long tradition of informal payment that has persisted despite attempts in some countries to curb it.

Lack of transparency in health facility operations⁵³.

The opportunistic environment created by the deficiency of resources offers informal payments as a perverse incentive for providers. The cultural acceptance and inability of the government to regulate such actions perpetuates the practice. Hence, estimated frequency of informal payments in the region are typically high. However, data on the extent and size of informal payments is scarce because they are covert and, in some countries, illegal. According to a 2000 World Bank report which reviewed informal payments across the European region, 21% of all healthcare in Bulgaria incurred informal charges in 1997. A figure of 31% was reported found in Latvia in 2000 and the figures ranged up to 78% in other candidate countries⁵⁴. The percentage of patients reporting that they had been required to make some payment for a service was 60% in Slovakia and 78 % of inpatients in Poland. However, informal payments are not high in the Czech Republic where doctors' salaries have risen above the rate of inflation of average wages. The level of payments is highest for inpatient care with drugs and outpatient care subject to lower fee levels. Further survey data is needed to establish more accurately the level and extent of informal payments. Less well understood or documented are the reasons why informal payments exist and persist.

⁵³ Shahriari,, Belli, et al. 2001

⁵⁴ Lewis 2000

Furthermore, lack of transparency means that tapping this revenue is difficult for publicly funded systems. Converting informal payments into formalized cost-sharing arrangements requires compliance from the providers, who may lose substantial income (especially if income has to be declared for tax purposes) and public support. Securing these is not an easy task. Experience from other non-European low-income countries suggests that whether such initiatives can be implemented in practice depends on the ability of government to regulate providers and their willingness to set priorities among or limit the services on offer. The ability to achieve the objectives of improving efficiency and quality without jeopardizing equity critically depends on a number of policy measures. These encompass skills and capacity of staff, the development of appropriate incentives and exemption systems and suitable information systems to support the accounting and auditing of such payments (Mills, Bennett, Russell, 2001). Informal payments can abate government efforts to improve accountability and management as well as reduce the revenue base upon which the health system may rely upon. Informal payments do represent an important source of revenue in countries in which prepayment systems have collapsed, and phasing them out without developing suitable alternatives would, most likely, be damaging.

There is much less evidence on how informal payments affect utilization because obtaining information is difficult. However, where these are required *ex ante* (in some countries in both western and eastern Europe), patients who cannot afford the payments either cannot obtain treatment or access the same level of services or have to wait longer for it. In addition to the financial barrier imposed by fees, patients in some countries are further deterred by the uncertainty about prices caused by informal payments (Mills, Bennett, 2002). There is no evidence as to whether official fees affect equity more strongly than informal payments.

4.2.3. Private medical insurance

Voluntary insurance was conceived in many countries as a complement to social health insurance, covering those services excluded from the benefits of the social health insurance scheme. In practice the boundaries between public and private insurance were not defined in part due to the failure in many countries to define a basic benefits package (as described in the next session). In practice there was some demand for private insurance to duplicate or supplement social health insurance cover due to the inadequacy of access.

The proportion of private medical insurance (PMI) in the candidate countries is generally minimal. Only in Slovenia is the proportion of PMI substantial accounting for almost approximately twelve percent of the total health

expenditure (In Malta around 25% of population have some type of private medical insurance but most have rather basic coverage.)

Although faster access to specialists and better hospital amenities are the primary motives for seeking PMI, travel health insurance is also a main factor and, in some accession countries, the only reason for seeking PMI. (Table 5)

In most countries the experience with private insurance presents limited evidence. The lack of regulation or oversight of solvency among the insurance industry is a beleaguering hazard. However, non-profit insurers, voluntary health funds, foreign managed care companies, and other insurance agencies and societies have joined the list in offering such services. Other countries have taken a more cautious approach limiting, until recently, the sale of voluntary insurance to the insurance funds (responsible for social insurance) as in Slovenia. These are often supplementary policies including cover for co-payments under public insurance, thus nullifying their effect, at least for those who can afford supplementary cover. Following accession to the European Union, the market for voluntary insurance in these countries will have to open up to competition from private insurance companies and will be subject to limited regulation. If private health insurance markets are to operate effectively there need to be clear boundaries set between the public and private sector in terms of benefits and beneficiaries, and proper regulation of their activities to protect consumers.

Table 5 Proportion of Private Insurance in Pre-Accession Countries

Country	Provided By	For What	Expenditure for Private Health Insurance
TRANSITION COUNTRIES			
Bulgaria	Commercial insurers	Amenities	Minimal
Czech Republic	Nonprofit insurers Commercial insurers	Amenities excluded from basic package, care in private hospitals; Travel insurance	Minimal
Estonia	Commercial insurers	Travel insurance	Minimal
Hungary	Commercial insurers Voluntary health funds Foreign managed-care Companies	Amenities, care in private hospitals, loss of salary during sickness, gratuities	Minimal
Latvia	Commercial insurers Employer-Sponsored Schemes	Patient payments dentistry, sanatoria treatment, rehabilitation, drug expenditures	N/A
Lithuania	State Insurance Agency Commercial insurers Insurance societies Mutual insurance societies	Travel insurance	Minimal

Poland	Commercial insurers Foreign managed-care Companies	Amenities excluded from basic package, care in private hospitals	Minimal
Romania	Commercial insurers	Travel insurance; Employees of a few foreign companies	Minimal
Slovakia	Commercial insurers Foreign managed-care companies		1% of THE (1995)
Slovenia	Commercial insurers, Adriatic Mutual insurer, Vzajemna	Co-payments, drugs, emergency care abroad	11.6% of THE (1998)
OTHER PRE-ACCESSION COUNTRIES			
Cyprus	Commercial insurers Employer-Sponsored Schemes	Private (primary & secondary) health care services	3% of THE (2002)
Malta	Commercial insurers Domestic insurance companies Foreign insurance companies	Amenities excluded from basic package, care in private/overseas hospitals	Not Available
Turkey	Commercial insurers	Amenities excluded from basic package, faster access	Low

Sources: Country Reports, 2002; WHO, Health Care Systems in Transition. Lithuania (Copenhagen: WHO Regional Office for Europe 2000); WHO, Health Care Systems in Transition. Malta (Copenhagen: WHO Regional Office for Europe 1999); WHO, Health Care Systems in Transition. Slovenia (Copenhagen: WHO Regional Office for Europe 2002)

4.2.4. Defining contributions

With the shift to social health insurance in many CEE countries the burden of contributions has largely fallen on labour costs. The size of the contributions and the respective shares between employers and employees in different countries are shown in Table 6.

Contributions are generally shared between the employer and employee. Often the employer pays at least half, if not all (as in the case of Estonia), of the social health insurance contribution. Only in Poland is the employee responsible for the entire contribution. Latvia, Cyprus, Malta, and Turkey do not mandate contributions. Latvia's financing of the health care system is through an earmarked portion of the general taxation. The Mediterranean countries are also financed through general taxation, although Cyprus is due to implement a social health insurance system by 2005. Policy makers need to bear in mind that if the employer share of the contribution is too high, there is a disincentive for employers to hire additional workers. Thus, the labour market may be inadvertently affected (Pavlova, Groot, 2000).

Table 6 *Size and nominal distribution of the social health insurance contribution between employers and employees*

Country	Size of Contribution (% of Earnings)	Nominal Distribution of the Contributions Between Employers and Employees (Percent)
TRANSITION COUNTRIES		
Bulgaria	6	75:25
Czech Republic	13.5	66:33
Estonia	13	100:0
Hungary	23.5	75:25
Latvia	N/A	N/A
Lithuania	N/A	Employer: 3% of payroll (+ 30% natural person income tax) Employee: 1% of monthly wage
Poland	7.75	0:100
Romania	14	50:50
Slovakia	13.25	50:50 (+employer pays 0.53% additional for professional diseases & injuries at work)
Slovenia	13.45	53:47(employer pays 0.53% additional for professional diseases & injuries at work)
OTHER PRE-ACCESSION COUNTRIES		
Cyprus	N/A (Planned 1.5 - 2%)	N/A
Malta	N/A	N/A
Turkey	N/A	N/A

Sources: Country Reports, 2002; WHO, Health Care Systems in Transition. Slovenia (Copenhagen: WHO Regional Office for Europe 2002)

4.2.5. Defining Beneficiaries and Benefits

Universal coverage of the population with access to health care is the stated aim of all European health systems. However, inadequate financing and parallel resultant 'informal charging' in some mainly CCEE candidate countries has led to the exclusion of parts of the population in some candidate countries. Concerns have also been raised about the exclusion of some minority groups, such as the Roma (discussed below), from complete access to full healthcare in some candidate countries. Informal payments were common in the early 1990s in a number of candidate and other countries in the European region when the economies faced were in great difficulty.

In theory entitlements to health care benefits have remained universal (100% of the population) in theory in most countries. However, anecdotal reports from Poland indicate that those who do not pay insurance contributions directly (and there are significant numbers in the region, such as the self-employed, those in small informal businesses, farmers, the unemployed, students, and pensioners) are treated as “uninsured.” Contributions must either be subsidized by other public revenues or they may be asked for out-of-pocket payments at the point of service (Chawla, 2000).

As it may be determined from the table below (

Table 7), entitlement is often based on contributions to the social health insurance plan. This has great implications on the equity within the system, as those who are not able to contribute to the plan will not be covered. Likewise, the inaccessibility of services for a portion of the population introduces the problem of unmet health needs within the population.

Table 7 Entitlement and coverage in pre-accession countries

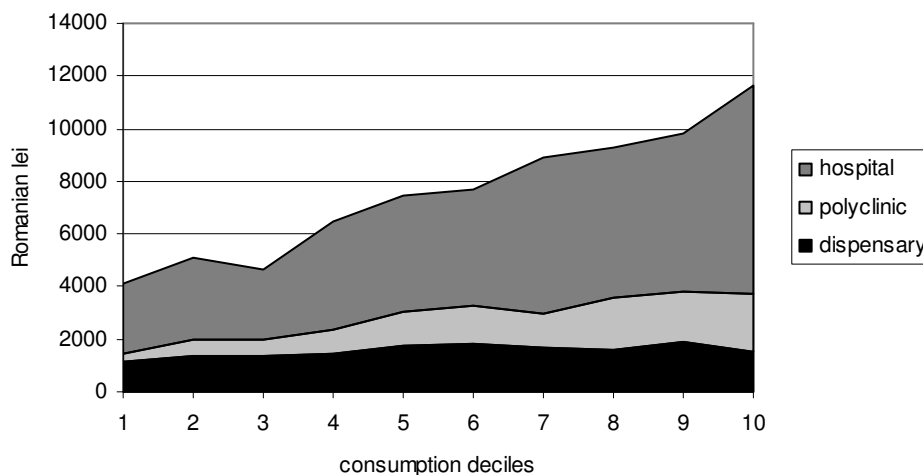
Country	Basis of Entitlement	Basic Benefits Coverage	Co-Payments for Basic Benefits
Bulgaria	Contributions	Universal	No
Czech Republic	Permanent Residence	Universal	No
Estonia	Taxation (13% of payroll tax earmarked)	Universal	No
Hungary	Contributions	Universal	No
Latvia	Taxation (28.4% personal income tax revenues earmarked)	Universal	Yes
Lithuania	Contributions	Universal	Yes
Poland	Contributions	Almost universal	No
Romania	Contributions	Universal	No
Slovakia	Permanent Residence	Universal	Yes
Slovenia	Citizenship	Universal	Yes
Cyprus	Taxation, but a National Health Insurance scheme is scheduled for 2005	Only 65% of the population is fully covered	Yes
Malta	Citizenship	Universal	No
Turkey	Taxation	Universal	Yes

Sources: Country Reports, 2002.; WHO, Health Care Systems in Transition. Czech Republic (Copenhagen: WHO Regional Office for Europe 2000); WHO, Health Care Systems in Transition. Malta (Copenhagen: WHO Regional Office for Europe 1999); WHO, Health Care Systems in Transition. Slovakia (Copenhagen: WHO Regional Office for Europe 2000).

Even where entitlement is universal there may be substantial differences between population groups in their ability to access services. Several studies in CEE (Chakraborty, 2002) show incidence of public expenditure on health care and social assistance programs are not always well-targeted. The non-poor often benefit disproportionately. In addition, there are marked differences in resource allocation between capital cities and other cities, and urban and rural areas. Despite the ideology of equity, these disparities were prevalent during the pre-transition phase, and in many countries have not been corrected. Indeed, some longitudinal analyses show disparities growing over the last decade (World Bank, 2002).

Figure 12 illustrates estimates from 1994 data from Romania, showing per capita spending by income decile. It shows that higher income groups benefit more than low income groups particularly from hospital services.

Figure 12 Spending per Capita on Health Care, by Facility Type and Income decile, Romania, 1994



Source: World Bank, 1997

Note: 1= lowest, 10= highest income decile

Historically most CEE countries provided comprehensive coverage in theory. In practice services were rationed. Countries in both western Europe and CEE are attempting to cope with funding many and expensive medical and health services. Defining a package of benefits (i.e. limiting what is covered) has been seen as one option to cope with the discrepancy between available (public) resources and existing (perceived) demands. Some countries in the region have attempted to define a more concise or “basic” benefits package to be financed from the National Budget and/or via National Health Insurance.

But, in most cases, changes in benefits packages were done in a very incremental way or not at all and in most instances, attempts to develop a systematic “basic package” failed.

Many factors/issues made it very difficult to determine a package and implement it. Some of the challenges have been technical, others more political. For example, exhaustive information about the cost-effectiveness of interventions in a particular setting is not available and would be extremely costly to obtain. Where entitlements are defined they tend to focus on individualised curative interventions rather on the wider population interventions and public health initiatives. On the other hand, citizenry and politicians see comprehensive and free health care as a right, and are not ready to accept cuts in benefits. Providers, who depend upon the income, similarly oppose it (Bultman, 2002).

The beneficiaries who are entitled to benefits because they contribute may be identical to who and what is covered by the pooled funds. However, the pool may cover a larger population than just those who directly contribute. For example, the social health insurance funds are expected to cover the whole population including the non-working and therefore non-contributing population through transfers from tax revenues and transfers from other social insurance funds (e.g. employment and pension funds). Where there is no explicit entitlement to certain benefits, but the system is in theory comprehensive, purchasers, such as regional authorities or insurance funds tend to make decisions about what to buy thus undermining equity of access. Where a basic package of benefits is defined, purchasers may have the freedom to offer supplementary benefits. However, this is rare in the CEE countries.

4.3.Pooling of funds

Another important function of health care financing is to pool the resources collected from various sources and to allocate these to purchasers. The extent of pooling will depend on how much of the revenues collected are pooled through a single fund and whether different sources of funding are pooled or remain separate. For example tax revenues may be pooled together with social insurance contributions to enable funds to purchase health care services on behalf of all citizens. Alternatively pooling may be limited if tax revenues are kept separate to provide public services directly for those who do not make insurance contributions. Where there is decentralisation or multiple collection agents pooling may occur at the national level if mechanisms exist to redistribute through a central pool. For example, if regional taxes are levied and retained by local government pooling only operates at the local level. However, if central taxes are used to compensate regions for the different income levels and/ or different health needs of the populations covered then pooling is

extended to a national level. Similarly systems of resource allocation may be used to pool funds between competing insurance funds.

Pooling enhances efficiency because it reduces the incentives for risk selection and may break historical patterns of allocation. It also increases equity and solidarity principles by sharing risks across a larger population. Voluntary health insurance may, if it is group rated, pool risks amongst the employees of a company or if it is community rated amongst the residents of a particular area. However, usually voluntary health insurance is initially individually risk rated (and may be experience rated subsequently) therefore pooling amongst subscribers is extremely limited. If user charges are retained by the providers who collect them, there is little pooling of funds. However, where revenues from user charges are pooled with other revenues to provide services for a specific population pooling of revenues may occur.

4.3.1. Pooling mechanisms

A well designed pooling function can be judged on the extent to which multiple revenue streams are integrated or fragmented and the size of the population across which pooling occurs. In smaller countries which are predominantly funded by social insurance such as Hungary, Slovenia and others, revenue streams are less fragmented (Preker, 2002). Problems still persist due to the lack of pooling of resources for operational expenditures (from social insurance contributions) with capital investment (usually from other sources such as central and local taxation). Some additional funding is also allocated directly from general government revenues to teaching hospitals, thus distorting the pooling.

Decentralisation in many countries has included the devolution of revenue collection to regional government or to regional funds (e.g. Poland and Romania). In order to ensure adequate pooling between regions resource allocation methods were designed which aimed to ensure some redistribution according to the health needs of the population covered. However, regional governments have been reluctant to surrender revenues that they have collected to central government for redistribution to other regions. Similar political tensions exist in Italy where a similar redistribution mechanism has been introduced. Centralised collection of funds still occurs in Bulgaria, Estonia, Latvia, Lithuania, Cyprus, Malta, and Turkey. In Bulgaria, Estonia, Latvia, and Lithuania, a centralised agency will collect the hypothecated social health insurance contribution (Table 8).

In Bulgaria, the National Social Security Institute collects the social tax and transfers funds to the National Health Insurance Fund which further distributes the funds from the Head Office in Sofia to the 28 regional and 120 municipal

offices. Estonia's Taxation Agency, as well as Lithuania's State Social Insurance Council (SODRA) follows suit by collecting a 'social tax' which includes the SHI contribution among other social benefits contributions (such as maternity, pension or sick leave). Latvia, like Estonia, collects an earmarked portion of income tax. In this case, the hypothecated tax is 28.4% of each individual's income tax (Table 8).

Table 8 Collection and redistribution of funds in health care systems in accession countries

Country	Fund Collector	Fund Redistributor
TRANSITION COUNTRIES		
Bulgaria	National Social Security Institute	National Health Insurance Fund
Czech Republic	General Health Insurance Fund + 7 other sector/enterprise insurance agencies	Each Fund distributes
Estonia	Taxation Agency	Central Sickness Fund +17 Regional Sickness Funds (+1 Seaman's Sickness Fund)
Hungary	National Health Insurance Fund (HIFA) + network of 19 county HIF offices	Each Fund distributes
Latvia*	State	SCHIA** distributes funds to 8 regional funds
Lithuania	State Social Insurance Council (SODRA)	State Sickness Fund
Poland	16 Regional Sickness Fund + 1 Trade Sickness Fund	Each Fund distributes
Romania	42 District Health Insurance Funds	Each Fund distributes
Slovakia	5 Health Insurance Companies***	Each Fund distributes
Slovenia	National Health Insurance Institute (NHII)	Each Fund distributes
OTHER PRE-ACCESSION COUNTRIES		
Cyprus	Ministry of Finance	Ministry of Health
Malta	Ministry of Finance	Ministry of Health
Turkey	Ministry of Finance Social Insurance Organization (SSK) Bag-Kur (Self-Employed Fund) Government Employees Retirement Fund (GERF)	Ministry of Health SSK Bag-Kur GERF

Sources: Country Reports, 2002.; WHO, Health Care Systems in Transition. Estonia (Copenhagen: WHO Regional Office for Europe 2000); WHO, Health Care Systems in Transition. Lithuania (Copenhagen: WHO Regional Office for Europe 2000); WHO, Health Care Systems in Transition. Malta (Copenhagen: WHO Regional Office for Europe 1999);

WHO, Health Care Systems in Transition. Turkey (Copenhagen: WHO Regional Office for Europe 1996); Lember 2002; Orosz and Burns 2000; Bara et al. 2002.

NOTES: LATVIA: * 1993: 32 territorial sickness funds; 1997: 32 merged into 8 regional (6 are local government; 2 are branches of the SCHIA); ** State Compulsory Health Insurance Agency (SCHIA); SLOVAKIA: ***2 are established by law and solvency guaranteed by state (General Health Insurance Company [VsZP] and the Common Health Insurance Company [SZP] covering army, police and railway employees)

With the transition to social health insurance and the creation of multiple insurance funds, pooling of funds has become more fragmented. Similar methods of resource allocation (or reallocation) can be employed to ensure pooling across multiple insurance funds even where these are not regionally defined. However, these risk adjustment mechanisms as implemented in Germany, Netherlands, Israel and Switzerland require significant information about individual members of funds. Where allocations have been crudely weighted according to age and sex there has been increased scope for opportunistic behaviour by funds, namely to select good risks. More sophisticated formula will generate significant costs and require technical capacity to implement.

4.3.2. Resource allocation

In many CEE countries the main purchasers of services are insurance funds. However, in some countries regional authorities are also responsible for purchasing. In some cases, funds are collected and retained by the purchaser in which case there is no allocation mechanism. Where there is pooling either through a central fund or central government, resource allocation mechanisms are used to allocate resources to purchasers.

Several countries – such as Poland and Lithuania– have developed new geographic allocation formulas based on per capita or “demand side” principles relative to older “supply-side” Semashko-driven normatives. One premise of this approach is that it results in reallocation of resources according to population needs, as well as consumer preferences and priorities. In process terms, this involves access to certain technical skills (e.g., public health skills to assess health needs and evaluate outcomes; and access to evidence on the cost and effectiveness of interventions). Often the information and technical expertise required is scarce or non-existent. Estonia is relatively unusual in having public health involvement in the purchasing and supervision of health services. Mechanisms for needs assessment are conspicuously absent from most countries in the region.

The use of risk adjustment in allocating funds can occur on several different basis or combinations thereof. For example, Latvia and Poland allocate funds

based on regional divides. In addition to the allocation to regional funds, funds are distributed via capitation based on size and age structure of the population in Latvia⁵⁵, but via an Equalisation Fund in Poland⁵⁶. The Equalisation Fund in Poland redistributes funds based on age and average income of the population. Romania divides the funds into districts; however, the National Health Insurance Fund can reallocate up to 25% of collected funds to underfunded districts⁵⁷. It seems that the countries other than those listed, do not divide funds geographically. However, demographic characteristics, such as age and sex, are typically the basis on which reallocation occurs. In the Czech Republic, the elderly aged more than 60 years old are allocated funds at three times the standard capitation rate (2002). In Slovakia, the standard characteristics of age and sex structure of the population are used for reallocation of funds. This has resulted in redistribution towards VsZP, the General Health Insurance Company, which covers the majority of the Slovak population (68% of total population), due to the greater proportions of children and elderly covered by this particular fund.

4.3.3. Health Care Expenditure Trends

Whatever role the health system plays in health status, two aspects of health systems with likely implications for health in the candidate countries are clear: resources for healthcare are much lower than those found in the existing EU member states and secondly, that many of the Central and Eastern European candidates faced fairly dramatic resource falls for health in the early 1990s. In terms of the level of resources allocated to health care as part of overall GDP, there is considerable variation amongst the candidate countries. At the lowest, Romania spends around 2.9% of GDP on health, while at the other end, Malta spends 8.8%⁵⁸ (Table 9). With the exception of Malta, which allocates a greater proportion of GDP to health than do the EU countries on average, candidate countries, with the exception of the Baltic states and Romania, Bulgaria and Turkey which allocate very low levels to health, give slightly less of their GDP to health but the gap is very narrow. Although there is a small difference in allocation of GDP to health between candidate countries and EU member states, some candidate countries have made great strides in increasing the health GDP expenditure over the last fifteen years (Cyprus, Lithuania, Malta, Turkey). In other countries, however, the percentage of GDP spent on health diminished between 1995 and 2000 (Bulgaria, Estonia, Hungary, Latvia, Slovakia and Slovenia). However, Kornai and McHale found that there is evidence that of

⁵⁵ Karaskevica, Tragakes, 2001

⁵⁶ McMenamin, Timonen, 2002

⁵⁷ Bara, van den Heuvel et al. 2002

⁵⁸ These figures do not include informal payments, thus possibly underestimating the effect of health expenditure

above normal spending in most transition countries when there is control for income and demographics.⁵⁹

Real per capita health expenditure (from taxation or insurance and direct public expenditure for services) in the candidate countries in 2000 ranged from US\$190⁶⁰ in Romania to US\$1462 in Slovenia. The levels of expenditure in 2000 showed an increase from 1995. (Table 10).

Almost all pre-accession countries exhibit a decreasing trend of public health expenditure. This is due to the increasing expansion of the private sector in most countries. Most countries have public expenditures greater than 75% indicating that roughly 25% of the remaining expenditure is contributed to private expenditure, although informal payments are not accounted for in these figures due to the covert nature of informal payments.

⁵⁹ Kornai, McHale, 2000

⁶⁰ At international dollar rate (\$)

Table 9 Measured National Expenditure on Health selected variables, 1995-2000

Member State	Total expenditure on Health Share in GDP (%)					General Government expenditure on Health Share in Total expenditure on Health (%)					Private expenditure on Health Share in Total expenditure on Health (%)							
	1995	1996	1997	1998	1999	2000	1995	1996	1997	1998	1999	2000	1995	1996	1997	1998	1999	2000
TRANSITION COUNTRIES																		
Bulgaria	4.4	3.8	4.3	4	4.1	3.9	81.9	80.8	81.1	79.4	78.9	77.6	18.1	19.2	18.9	20.6	21.1	22.4
Czech Republic	7.3	7.1	7.1	7.1	7.2	7.2	92.7	92.5	91.7	91.9	91.5	91.4	7.3	7.5	8.3	8.1	8.5	8.6
Estonia	8.6	7.2	6.3	6	6.6	6.1	91.4	89.8	88.5	86.3	80.4	76.7	8.6	10.2	11.5	13.7	19.6	23.3
Hungary	7.5	7.2	7	6.9	6.8	6.8	84	81.6	81.3	79.6	78.2	75.7	16	18.4	18.7	20.4	21.8	24.3
Latvia	6.5	6.3	6.2	6.6	6.4	5.9	65.4	63.1	61.8	61.1	62.9	60	34.6	36.9	38.2	38.9	37.1	40
Lithuania	5.2	5.5	5.9	6.3	6.1	6	86.3	76.9	77.7	76.7	75.1	72.4	13.7	23.1	22.3	23.3	24.9	27.6
Poland	6	6.4	6.1	6.4	6.2	6	72.9	73.4	72	65.4	71.1	69.7	27.1	26.6	28	34.6	28.9	30.3
Romania	2.8	4.5	4	3.5	3.3	2.9	66	72.2	62.9	56.9	59.3	63.8	34	27.8	37.1	43.1	40.7	36.2
Slovakia	7	7.5	6.1	5.9	5.8	5.9	82.1	81.2	91.7	91.6	89.4	89.6	17.9	18.8	8.3	8.4	10.6	10.4
Slovenia	9.1	8.8	8.9	8.7	8.7	8.6	78.1	79.4	79.3	78.7	78.6	78.9	21.9	20.6	20.7	21.3	21.4	21.1
OTHER PRE-ACCESSION COUNTRIES																		
Cyprus	7	7.7	8.2	7.9	7.8	7.9	55.4	52	51.3	53.1	53.3	53.8	44.6	48	48.7	46.9	46.7	46.2
Malta	8.3	8.4	8.6	8.4	8.4	8.8	71.4	70	67.9	69.3	67.5	68.5	28.6	30	32.1	30.7	32.5	31.5
Turkey	3.4	3.9	4.2	4.8	4.9	5	70.3	69.2	71.6	71.9	71.1	71.1	29.7	30.8	28.4	28.1	28.9	28.9

SOURCE: WHO, World Health Report, 2002.

Table 10 Measured National Expenditure on Health selected variables, 1995 – 2000

Member State	Per capita Government expenditure on Health at average exchange rate (US\$)					Per capita Government expenditure on Health at International Dollar rate (\$)						
	1995	1996	1997	1998	1999	2000	1995	1996	1997	1998	1999	2000
TRANSITION COUNTRIES												
Bulgaria	56	37	43	48	49	46	197	154	165	153	155	154
Czech Republic	340	366	334	360	347	327	836	848	853	867	889	942
Estonia	188	193	179	188	192	167	485	432	427	420	435	426
Hungary	274	261	255	257	256	238	569	548	565	600	618	640
Latvia	75	82	88	100	111	104	203	200	218	241	249	239
Lithuania	72	89	120	140	133	134	239	241	291	324	301	304
Poland	144	175	164	173	177	171	306	344	332	355	397	403
Romania	29	51	40	37	31	31	116	216	162	122	121	121
Slovakia	196	225	211	215	191	188	489	564	558	587	580	618
Slovenia	667	662	643	671	687	621	887	923	991	1010	1076	1154
OTHER PRE-ACCESSION COUNTRIES												
Cyprus	465	474	468	495	493	478	547	575	624	659	689	762
Malta	510	517	507	527	528	553	514	518	502	525	527	550
Turkey	65	78	90	108	98	107	134	162	196	218	208	230

SOURCE: WHO, World Health Report, 2002.

4.4. Problems with social health insurance

Contributions for health care in practice are a mix of taxation, social insurance, voluntary insurance and out of pocket payments in most countries, in part because of the failure of social insurance to generate a significant proportion of health care expenditure. There are a number of reasons why this was so:

Weak macroeconomic context: The per capita GDP and the change in GDP over the period 1989-2001 respectively provide the macroeconomic context during the 1990s. There is a high correlation between those countries with low per capita GDP and negative economic growth and a high reliance on out of pocket expenditure. The countries that have been more successful in making the transition to social health insurance contributions (accounting for more than 60% of total expenditure on health) are also those with the highest levels of per capita GDP (Slovenia, Czech Republic, Hungary and Slovakia).

Labour market features: High levels of unemployment mean that the proportion of the population in formal employment is low, thus creating a very narrow revenue base from which to draw contributions. The numbers of people in formal employment are low and therefore few employers are required to contribute. Many of those in formal employment are public employees, thus the employer share has to be made by government out of tax revenues. In addition, there are large numbers of self-employed and a large agricultural labour force for whom contribution rates are lower and only levied when a profit is declared (which is not usual), considering 1989 as the baseline, it is apparent that total employment has fallen in all candidate countries. Those countries which exhibited rather high levels of total employment before the transition, Bulgaria, Slovenia, Hungary, Latvia and Poland appear to have lost the greatest proportion of employed. In 2001, Slovakia (18.6%), Poland (17.4%) and Bulgaria (17.3%) have approximately one-fifth of their labor force officially registered as unemployed. Furthermore, as Table 11 shows the size of the shadow economy is significant in all CEE accession countries ranging from 18.3% of GDP in Slovakia to 39.1% in Estonia in 2000/01. This is also the case with the shadow economy labor force which in 1998/99 ranged between 16.3% of the working age population in Slovakia to 33.4% in Estonia.

Low compliance: Compliance has been extremely difficult in part due to some of the features of the labour market mentioned above. The large informal economy that developed following transition has meant widespread evasion of contributions (and taxes). Corruption in the economy as a whole, and the health care system in particular, may affect the population's ability to pay and undermine public acceptance of social insurance if they are

having to back additional informal payments. Low levels of compliance are further exacerbated because there is often no link between contribution and benefit. The historical legacy of the socialist era was that many countries had an enshrined constitutional right to health care for all, which was retained. Consequently, from the outset entitlement to health care benefits under social insurance has been universal and unrelated to contribution status. This contrasts with the gradual expansion of social health insurance in Western Europe during the twentieth century to different population groups as economic development progressed. It is only very recently that France and Belgium have extended the right to health care benefits to all legal residents. Thus, in Eastern Europe there are reduced incentives to contribute whilst at the same time large expenditures for the funds.

Table 11 The Size of the Shadow Economy in Transition Countries

Transition Countries	Size of the Shadow Economy (in % of GDP)				Shadow Economy Labor Force in % of (Working Age) Population, 1998/99
	Physical Input (Electricity) Method		DYMIMIC Method		
	Average 1990-93	Average 1994-95	Average 1990-93	Average 2000/01	
Central and Eastern Europe					
Bulgaria	26.3	32.7	27.1	36.4	30.4
Czech Republic	13.4	14.5	13.1	18.4	12.6
Estonia	33.9	38.5	34.3	39.1	33.4
Hungary	20.7	28.4	22.3	24.4	20.9
Latvia	24.3	34.8	25.7	39.6	29.6
Lithuania	26.0	25.2	26.0	29.4	20.3
Poland	20.3	13.9	22.3	27.4	20.9
Romania	26.0	28.3	27.3	33.4	24.3
Slovakia	14.2	15.2	15.1	18.3	16.3
Slovenia	22.4	23.9	22.9	26.7	21.6
1) Working age population means population between the age of 16 and 65.					

Source⁶¹ : Schneider 2002

⁶¹ Authors' calculations using the DYMIMIC method and values using the physical input method .

Lack of transfers to health insurance: Contributions to the health insurance funds on behalf of the non-working population should in most countries have been made through transfers from other social insurance funds, such as unemployment and pension funds, or from government revenues. However, due to chronic deficits across the social security system, these transfers were in many cases not made and substantial arrears built up. Health insurance funds were often obliged to provide health services to the whole population despite the lack of contributory income. The result was large financial deficits in the health insurance funds.

The sustainability of health care systems in the region depends largely on the ability to generate sufficient revenue. This is a key challenge given the number of contextual and structural problems in the region. However, in order to match funding to benefits and beneficiaries, policymakers must also take decisions about who and what to cover.

4.3. Contracting and purchasing of services

Introduction

This section concentrates on the challenges facing the candidate countries in central and eastern Europe. The systems that they inherited from the communist era had many weaknesses, reflecting a model of care that has long become obsolete. Large hospital facilities were designed for patients with diseases that either resolved spontaneously, were quickly cured by basic treatments or were equally rapidly fatal. Staff with few resources to deploy required only basic training. Nevertheless, under-investment in staff development and appropriate technology meant that many were needed. Primary care was especially weak, serving largely as a funnel for directing the sick to secondary care or as a means of controlling absence from work due to sickness. Patients, used to shortages in every area of their lives, grudgingly accepted unresponsive and poor-quality services as inevitable.

The inherited model in most CEE countries was characterized by an emphasis on supply-side input norms and planning. This was perceived as overly rigid, with structural incentives that encouraged overly expensive specialized care relative to more cost-effective primary and outpatient care. Countries in transition found themselves with too many staff, beds, and facilities (Table 12). There was a related perception of underpayment to individual physicians and nurses, regardless of speciality⁶². As early as 1987, the CEE and FSU countries began testing new organizational and financing models to improve efficiency and assure better funds flows. The “New Economic Mechanism” (NEM), for example, picked a number of geographic demonstration areas and re-organized the polyclinics into family

⁶² Ensor, 1993

practice groups. The objective was to shift the locus of care to less expensive outpatient and primary services.

Table 12 Measures of health care resources

	No. Doctors/ 100,000 pop	No. nurses/ 100,000	No hosp beds/ 100,000 (2000)	Average Length of stay
Malta	263	-	542	4.63
Slovenia	*215	*693	*555	*7.6
Czech Republic	337	920	855	8.8
Cyprus	***260	***451	***476	-
Slovakia	323	748	797	9.4
Poland	*226	-	*581	-
Bulgaria	337	462	741	-
Hungary	*361	286	841	6.7
Lithuania	380	758	924	8.3
Estonia	322	633	718	7.3
Latvia	320	518	873	-
Romania	189	402	744	-
Turkey	*127	*240	264	*5.4
EU average	387	-	596	**8.2

* 1999 ** 1998 ***1997

Source: All data apart from Cyprus HFA 2002. Cyprus data from WHO EMRO

At the outset, it is important to recognize that health care delivery takes place within a wider context. In particular, the health needs of the population being served are changing. This has important implications for health care delivery.

Superficially, it may seem easy to describe what has happened to health care delivery systems in this region by looking at the available data on hospitals and other routinely collected statistics. But what is meant by the word “hospital”? Is it somewhere that can provide a wide range of complex and invasive treatments, or is it simply a place where people can rest while they either recover or die. In the Soviet model, hospitals were traditionally required to deal with many social ailments, compensating for the lack of long-term care and an absence of social workers for community outreach, as well as to provide housing of last resort for “social cases” such as the elderly and orphans.

Another commonly used measure is the number of hospital beds. Again, this has very little meaning. A bed is simply an item of furniture. It contributes almost nothing to health care unless it is supported by trained staff and functional equipment and is contained within a coordinated organizational structure. Too many of the hospital beds that are recorded as existing in this region are simply beds. As hospital reimbursement during the communist period was based on the number of beds and the number of

staff, it is not surprising that many hospitals established a system of “virtual” beds in order to attract higher allocations from the health budget.

Another theme is that there has been rather less reduction in hospital capacity or investment in alternative facilities than might have been expected. Many governments, however, have decentralized ownership. As

Table 13 shows privatization has largely been restricted to pharmacies, dental and some primary care pharmacies and dental clinics, with few examples of hospital privatization despite much political rhetoric. More frequently, hospitals have been transferred from central to local government. This has proceeded in tandem with the introduction of new management structures within hospitals, supported by new information systems and training programmes. Decentralization has made hospital reform more difficult. In any municipality the hospital is a major employer, and doctors and hospital managers wield more influence over local politicians, making restructuring extremely difficult politically.

Table 13 *Share of Private Health Care Providers in the EU accession countries*

Country	Inpatient Beds (%)	Primary-Care Physicians (%)	Dentists (%)	Pharmacies (%)
TRANSITION COUNTRIES				
Bulgaria	~0	Minor	82	70
Czech Republic	9	95	~100	~100
Estonia	N/A	N/A	75	N/A
Hungary	~0	76	40	~100
Latvia	1.7	N/A	67.3	~100
Lithuania	N/A	7	50	~100
Poland	~0	Minor	~100	93
Romania	~0	Minor	~100	90
Slovakia	~0	98	~100	100
Slovenia	~0	14	37	68
OTHER PRE-ACCESSION COUNTRIES				
Cyprus	39	58	N/A	N/A
Malta	7.95	N/A	N/A	N/A
Turkey				

Sources: Country Reports, 2002.; WHO, Health Care Systems in Transition. Czech Republic (Copenhagen: WHO Regional Office for Europe 2000); WHO, Health Care Systems in Transition. Malta (Copenhagen: WHO Regional Office for Europe 1999).

Many countries have sought to develop primary care, with innovative training programmes in medical schools, investment in facilities and new methods of payment. Nevertheless, experience shows that this will require a major shift in medical education, not just the retraining of general practitioners.

Most obviously (although surprisingly frequently overlooked by those who undertake international comparisons of health care expenditures) sicker populations require more health care (Wanless, 2002). This highlights the importance of having a health policy that seeks to reduce future demand for care through promotion of health, as well as ensuring that the need for care today is met to the extent possible with the resources available to the health system. However, the main consequence of differing disease patterns is that the types of care provided will also differ. Older populations suffer from chronic conditions and may have more complex disorders, often with multiple disease processes, requiring care from coordinated teams of health professionals with a central role for the primary care physician. Populations that have experienced high rates of smoking have not only high rates of lung cancer and heart disease but are also much less likely to have an uncomplicated recovery from anaesthesia, thus requiring additional post-operative facilities. Populations with low birth rates require fewer obstetric facilities, but those with high rates of teenage pregnancy will have more low-birth-weight babies and so require additional neonatal intensive care facilities. Societies with high rates of violence will require additional trauma facilities.

In theory there are two main models of purchasing: integrated models (under which the providers are owned and managed by the insurer) and contract models (under which the providers are separate from the insurer). Many countries have been moving from integrated command and control models of publicly operated provision toward one or another new form of “purchasing” in which public, or quasi-public, third-party payers are kept more organizationally separate from health service providers. The CEE candidate countries have all implemented contract models whereas the Mediterranean candidate countries still maintain the integrated model. Malta has announced, as of July 2001, of the transformation towards a contract model and will begin the gradual implementation in public hospitals. The rationale for this “purchaser-provider split” model has been to (Figueras, Jakubowski, Robinson, 2001):

- improve services by linking plans and priorities to resource allocation, for instance, to shift resources to more cost-effective interventions and across care boundaries (e.g., from inpatient to outpatient care). Purchasing, in this sense can be regarded as an alternative way to do some of the things that have been traditionally pursued via planning;
- better meet population health needs and consumer expectations by building them into purchasing decisions;
- improve providers’ performance by giving purchasers policy levers, such as contracting or financial incentives or monitoring tools, that can be used to increase provider responsiveness and efficiency;
- facilitate decentralization of management and the devolution of decision-making by allowing providers to focus on the efficient production of services as determined by the purchaser;

- introduce competition or contestability among providers and thereby use market mechanisms to increase efficiency.

In several European countries alongside the shift to contracting has been a shift away from historical or norm based budgeting to activity- or performance-related pay. The new forms of provider payment are intended to increase productivity and efficiency and ensure the high quality of services provided. However, they rely on good information systems and may be costlier to administer.

In the following sections we review the experience of financing health care in CEE over the past ten years, describing what has happened and offering some analysis of the implementation process.

4.4. Contracting Mechanisms ⁶³

Concurrent with the shift to social health insurance in CEE, contracts are increasingly used as a new model of relationships between purchasers and providers. Currently, there is no comprehensive account of contracting and existing evidence on its impact in Europe⁶⁴. CEE countries have tended to use “soft” agreements, rather than selective provider contracts that contain full accountability. Nevertheless, many countries continue to push for contracting that is more performance-based, as in Romania with primary care physicians ⁶⁵.

One disappointment to date has been the lack of selective contracting from among both public and private sector providers. Furthermore, the low payment rates discourage providers from seeking contracts, as in Poland. Whether purchaser or provider-driven, this has prevented competition or contestability among providers and thereby not fully utilized possible market mechanisms to increase efficiency.

Contracting for services in CEE countries has been challenging for a number of reasons:

- **Inadequacy and low predictability of funding:** Since contracts express a clear-cut commitment of a purchaser to reimburse the cost of provided services (contracts in many CEE countries are regulated by the Civil Code and therefore legally binding), attempts to start contracting require a realistic evaluation of available funding. Insurers simply cannot pay all providers’ bills. Debt increases, payment rates must be adjusted downward, and providers lose interest in volume and quality contractual provisions.

⁶³ This section on Contracting draws on some of the discussions found in Duran et al, forthcoming 2002, for the European Observatory on Health Care Systems.

⁶⁴ Duran, Sheiman, Schneider, 2002

⁶⁵ Vladescu, Radulescu, 2001

- **Low operational autonomy of providers:** To act as contracting parties, providers must have flexibility to respond to purchasers' demands and, in particular, be able to increase or decrease capacity, acquire and dispose of excessive capacity, borrow money within limits, take financial responsibility for the performance, etc. The trend has been to provide facilities with greater rights and responsibilities⁶⁶. The Baltic States have restructured state owned polyclinics into freestanding practices and independent contractors. State-owned hospitals have gained the status of public non-profit organizations with new contracting rights and responsibilities - in Bulgaria, Czech Republic, Estonia, Latvia, and Lithuania.
- **Lack of timely information and routine information systems:** In both Eastern and Western Europe, contracting is limited by insufficient information. The minimum information requirements for effective contracting cover patient flow data, cost and utilization information across specialties or diagnostic groups, and demographic and risk groups. Large investments are often required for information systems, including the capacity to process contracts and monitor outcomes.
- **Technical capacity and management skills:** Contracting requires particular skills (e.g., identifying cost-effective medical interventions, negotiating and monitoring providers' performance, communication strategy, etc.) that are not needed under direct public service provision. The corresponding capacity building exercise has been patchy and discontinuous. Other than some examples in Eastern Europe such as Budapest and Krakow, there are few health system management schools in CEE.

4.5. PROVIDER PAYMENT

With the former Semashko model, the line item budgeting system was used in all countries. Line item budgeting meant that allocation primarily reflected historical budgets plus some inflation factor; there was limited or no reallocation across categories, or from year to year; and, under difficult economic constraints, salaries, food and medicines took priority. Many countries have adopted new provider payment mechanisms.

Health Insurance Funds and even Ministries of Health now more typically use "performance-based" systems to pay for services. For primary care services, some variant of capitation is used in all CEE countries. In Estonia, Latvia, Lithuania and Poland capitation payments are age-weighted. Payment can go to the physician directly. Some of these models extend the traditional mix of services (e.g., minor surgeries) or "carve out" priority services such as immunizations and pay fee-for-service for these services

⁶⁶ Preker A, Harding, 2001

(Romania, Estonia), or pay a bonus for rural placement (Estonia and Lithuania). In the Czech Republic, primary care physicians were entitled to a cost-containment bonus. In Bulgaria, additional payments were made for unattractive working conditions and for the primary care physicians role in the management of health priorities. This fee-for-service and bonus add-on to the capitation model is important as some capitation models have been shown to decrease utilization of preventive services.

In Cyprus and Malta primary care doctors are paid on a fee-for-service basis whereas in Turkey they are salaried. Specialists working at ambulatory settings are paid on fee-for-service in most countries (Table 14)

In general, pharmacists' mark-ups are a percentage of wholesale prices. Margins are regressive in Hungary (16% mark-up for the highest wholesale price and 30% for the cheapest), Poland (12%-40%), Lithuania (12%-32% for non-reimbursed drugs), Latvia (20%-38%) and Bulgaria (20%-33% with a maximum of 30BGL for most expensive drugs). Malta (20%) and Cyprus (30%) apply fixed margins, while in Czech Republic the average pharmacists' mark-up is 22% of ex-manufacturer prices. In Slovenia pharmacy margin is between 8-9%, but pharmacists are also paid for pharmaceutical services on a fee-for-service basis. Generic substitution is allowed in the Czech Republic (when an original product is not available), Hungary (unless doctor explicitly asks for a patented product) and Poland. In Lithuania, the use of generics is encouraged through the reference price system. Pharmacists must dispense the cheapest drug in Romania (when doctors specify generic name on prescriptions) and in Poland.

For policies to encourage the use of generics to be successful, it is important that pharmacists are reimbursed in such a way as to not discourage them from dispensing the least expensive product. Fixed margins do not provide an incentive for pharmacists to dispense generic medicines. This is due to the pharmacist receiving the same reimbursement for dispensing a original drug as for dispensing a generic drug.

In countries where pharmacists are reimbursed based on a percentage of the dispensing price, there is also a disincentive to dispense generics. Because generic prices are lower than those of originator drugs, the percentage which the pharmacist receives when a generic is dispensed is also lower.

Many countries also are developing new hospital payment systems which pay for a defined unit of hospital output. The most popular approaches in the early years of transition were the per diem and per case-based payment systems. Per diem and simple per case were most often developed both because they required little data or capacity to design and implement, but also these were seen as methods to promote greater productivity by providers and also generate increased revenues to providers. Individual countries started at different levels of expertise and interest, and have

progressed differently. However most combined different levels of per diem and simple case-mix (e.g., department of facility) measures, and typically included only recurrent costs not capital costs or depreciation. Nevertheless, these steps serve as a developmental framework for examining these countries in terms of alternative hospital payment models.

In particular, there has been considerable enthusiasm for systems based on diagnosis related groups (DRGs). Two issues arise, the first being the law of unintended consequences. In Hungary, for example, the introduction of a DRG-based system led (as expected) to a reduction in length of stay, but also to a rise in the number of admissions as hospitals compensated for the lower payments they were receiving for each admission (Orosz, Hollo, 1999). In several countries, reductions in payments for ambulatory care have led to higher rates of hospital admission.

Table 14 Payment Systems in Pre-Accession Countries

Country	Primary Care (General Practitioners)	Outpatient (Specialist) Care
Bulgaria	Capitation + additional payment for unattractive conditions and management of health priorities	Visit Fee for primary and secondary examinations Service Fee for diagnosis services
Czech Republic	Capitation + cost-containment bonus	FFS with overall time limit applied to volume of invoiced services
Estonia	Age-weighted Capitation & FFS	
Hungary	Capitation	FFS with national cap
Latvia	Age-weighted Capitation	
Lithuania	Age-weighted Capitation + rural/urban adjustment	Age-weighted Capitation + rural/urban adjustment
Poland	Age-weighted Capitation	FFS with national cap
Romania	Weighted Capitation + FFS	FFS
Slovakia	Capitation	FFS with national cap
Slovenia	Capitation and FFS with a national cap	FFS
Cyprus	FFS	FFS
Malta	Public: Salary Private: FFS	Public: Salary Private: FFS
Turkey	Salary	N/A

Sources: Country Reports, 2002.; WHO, Health Care Systems in Transition. Malta (Copenhagen: WHO Regional Office for Europe 1999); WHO, Health Care Systems in Transition. Slovakia (Copenhagen: WHO Regional Office for Europe 2000)

Providers have responded to these incentives. These per diem and case-mix systems have driven up volume of cases admitted and put fiscal

pressures on the purchasing organization (e.g., Hungary and Czech Republic). Decreasing numbers of beds and lowered average lengths of stay were offset by increasing admissions in the 1990s – a trend that started in the mid 1990s in Eastern Europe, and the late 1990s in former Soviet countries when these began utilizing new payment methods. Most purchasers have had little capacity or experience of quality assurance or administrative mechanisms to stem the rapid increases in volume driven by the underlying incentives.

A number of countries in Eastern Europe are now shifting policy objectives, from revenue enhancement and increasing provider income, to goals more related to cost containment and efficiency. With this shift, hospital global budgets and capitation are emerging as the “next generation” of payment incentives beyond per diem and per case systems. Global budgets are being developed in seven of the countries for which information is available and already exists in five others with capitation pilots in a number of countries such as Hungary and Poland (Langenbrunner, Wiley, 2002). Some countries (e.g. Hungary) face fiscal pressures such that they cannot wait for sophisticated risk-adjusted payment cap systems, and instead sub-sectors (i.e., primary care, outpatient care, hospital care) are being capped at a national level as a first step to stopping the current haemorrhaging of expenditures. A summary of countries and hospital payment systems is provided in Table 15).

Table 15 CEE Countries: hospital payment systems

Country	Line Item	Per Diem	Per Case	Global Budget
Bulgaria			X	Developing
Czech Rep			X	X
Estonia		X	Developing	
Hungary			X	
Latvia		X	Developing	
Lithuania			X	
Poland			X	
Romania			X	X
Slovakia		X		?
Slovenia		X		?
Turkey	X			

Source: Langenbrunner et al., 2002

While the number and types of new payment systems in the region is a clear change over the last decade, results have been mixed to date, due to a number of issues in the region discussed above as well as other specific issues that await future policy leadership, including:

- **Fragmented public sector pooling and purchasing:** The scope for payment incentives changing behaviour is limited by disintegration of health finance pooling. Newly emerging insurance systems have often co-existed with the old financing mechanisms through direct (non-contractual) allocation of Government resources to providers. In many

CEE countries, there have become too many actors allocating funds (insurance, central and local treasuries and health authorities, sometimes commercial insurers), each trying to control its portion of the money.

There are successes. In the Baltic States, Czech Republic, Hungary, Slovakia, and Slovenia, insurers control most (>70 percent) of public funds. Purchasing is increasingly integrated, which facilitates financial planning and planning of medical services delivery (both strategic and operational) with the focus on efficiency gain and predictability of flows of funds.

Related, increasing out-of-pocket payments in many CEE countries, discussed above, further disintegrate the pooling through public channels. Out-of-pocket payments can further influence patient episode and treatment choice as patients tend to make larger payments for riskier interventions such as surgery Fehler! Textmarke nicht definiert.

- **Poor complementarity of design:** Payment reforms across settings often do not complement one another, hurting allocative efficiency. Similarly, closed sub-budgets (of the primary care, outpatient specialized care and in-patient care) now being applied are important tools for cost-containment, but will these generate adverse incentives for purchasers? Are patients being “dumped” from other sub-sectors? Are there adequate risk sharing mechanisms? And if not, will this cap only result in a complete shift of all risk onto the providers, which is both inequitable and inefficient?
- **Institutional impediments:** New pilots and payment programs are often blocked by legal or administrative impediments, such as civil service reform. And, there are significant vested interests concerned with preserving the current system, particularly in those areas that could lose from change, to be overcome.
- **Deficits:** In the early 1990s in Eastern Europe, public providers became indebted to their suppliers, and often appealed to the Government for subsidies or bailouts. In many of the former Soviet republics, debt has been almost constant, such that much spending occurs not on a cash basis but through a process of mutual debt settlement. A facility wishing to use part of its budget for, say, building maintenance, must first find a contractor with an outstanding debt with the local administration or insurance fund (depending on the source of funding). This debt is then cancelled or reduced in return for repairs to the building to an agreed value. If a debtor cannot be found for the service or commodity required, a facility may be tempted to obtain some other commodity just to ensure that the budget gets spent. The mutual debt settlement system helps to ensure that services can be provided even in cash-less circumstances, but does lead to sub-optimal allocation decisions and is administratively costly to operate (Ensor, Langenbrunner, 2002).

- **Monitoring and quality:** Each payment system design brings with it unintended consequences and opportunities for changing levels of quality of care, both better and worse. The monitoring capabilities by the purchaser are, however, too often underdeveloped. Future directions for purchasers in the region should include providing supports to ensure that quality is safeguarded and optimized.

5. SPECIAL ISSUES

1.1 Pharmaceuticals

Pharmaceutical policies in the thirteen pre-accession countries are an amalgam of different approaches, institutional structures and levels of development, as countries have organised their pharmaceutical sector in different ways. Yet, as the countries of the former Soviet block for historical reasons share some characteristics and face similar problems it might be useful to look at these ten candidates as one large group. The three Mediterranean candidates – Turkey, Cyprus and Malta – are, on the other hand, different in all aspects and can therefore not be grouped together.

The Baltic states and the countries of Central and Eastern Europe have had to rethink and reform their health care policies as part of the general restructuring of the states after the fall of the communist regimes. For the pharmaceutical sectors this meant radical changes as the centralised systems, state monopolies (of production, distribution and retail) and imports from the former Soviet Union have been replaced by market economies, privatisation and Western products.

5.1.1. Privatisation and liberalisation

Following the privatisation of the pharmaceutical industry, drug companies and wholesale networks are in the hands entrepreneurs and operate according to commercial strategies/ methods. In Hungary, 6 out of 7 Hungarian drug companies were owned by multinationals in 1997 and more than 90% of wholesale trade is held by 5 private companies and one public company. Privatisation has also led to a growth in importers, distributors and pharmacies: in 1993 there were 500 public pharmacies in Slovakia, in 1999 there were 1045 while in Bulgaria around 300 private importers and distributors were registered in 1997.

The transition to market economies brought with it the liberalisation of markets/ imports. The Baltic and Central and Eastern European countries can no longer rely on cheap Soviet imports, partly because these do not meet European pharmaceutical standards. Domestic production of pharmaceuticals has also fallen: in Hungary the “market share of domestic

products decreased from 74% in 1980 to 42% in 1997”, while in Slovakia domestic production fell to 17.6% in 1999. On the other hand, markets have been opened up to pharmaceuticals imported from Western Europe. This has improved supplies of drugs and shortages are generally no longer a problem, yet it has also led to significant price increases. In Slovenia, for example, the cost of an average prescription was around US\$ 6.5 in 1990, but rose to nearly US\$ 20 in 1999.

5.1.2. Escalation of drug prices

Most, if not all, of the countries have witnessed an escalation of drug prices and the consequent increase in pharmaceutical spending as a proportion of total health care expenditure.⁶⁷ In Slovakia, 16.8% of total health care expenditure was spent on drugs in 1990, while this amount fluctuated between 28% - 30.1% from 1993 to 1998. Romania is an interesting example as the absolute level of drug use is low, yet the proportion spent on pharmaceuticals accounted for 20% of total health care expenditure in 1998. Hungary might have experienced the most dramatic escalation, pharmaceuticals representing 5% of total health care expenditure. In 1990, reaching 32.5% in 1993 and decreasing to 28.5% in 1996 (one reason for this must be the decrease in domestic production described above). Lithuania might have been the largest ‘spender’ on drugs: as much as 37% of total health care expenditure went to pharmaceuticals in 1996.

As a result, cost-containment has become a major challenge and priority for governments as they wish to bring pharmaceutical expenses under control. Various measures have been introduced, with limited success, such as ‘selective’ reimbursement with reference prices and co-payments; practice guidelines, prescribing monitoring and budgets (less common) to encourage cost-conscious prescribing and the promotion of generics products. These will be looked at in detail in the sections on reimbursement and prescribing controls which follow.

5.1.3. Pricing decisions

In most countries, pricing is the responsibility of the Ministry of Health (MoH), but the pricing methods which are applied in the 13 countries differ and it is difficult to group the various approaches. Yet, a sort of pattern can be found among the methods.

⁶⁷ This is also due to the fact that other components of total health care expenditure remain relatively low such as salaries whereas drug spending represents a larger portion of low health budgets: while many developed countries spend less than 20% of total health care expenditure and between 0.7%-1.4% of GDP on drugs, a country like Hungary spend nearly 30% of total health care expenditure and 2.3% GDP on pharmaceuticals in 1996/1997.

Some countries determine prices by fixing maximum wholesale and retail margins which are added on to the ex-manufacturer prices. This seems to be the method used in Hungary and Lithuania, but also in Estonia and Malta, where pricing is 'free' as profit margins are regulated, but there are no price controls as such. The Czech Republic seems to have stricter controls as the Ministry of Finance (MoF) sets the maximum market prices, reference prices and the combined maximum margins for wholesalers and retailers. Romania and Slovenia take into account the drug prices in 3 foreign countries, selecting the lowest of these in the former and calculating the average price in the latter, while the Czech Republic and Latvia also make comparisons with drug prices abroad. In Poland (for imports) and Latvia (for drugs on the positive list), prices are negotiated between state agencies and manufacturers. In Bulgaria, pricing decisions are taken either by the National Health Insurance Fund or by the MoH.

Some countries make a distinction when pricing between imports and locally produced drugs (such as Poland and Cyprus) or between reimbursed and non-reimbursed drugs (e.g. Latvia and Poland). The Agency for Medicinal Products (a department of MoH) is responsible for the pricing of all pharmaceuticals in Slovenia, but rapid price increases meant that the government intervened in 1995 by controlling prices.

5.1.4. Reimbursement decisions

The three Baltic states and seven Central and Eastern European countries as well as Cyprus, all have public reimbursement systems in place, even though the manner in which the systems are organised varies from country to country. In Malta, on the other hand, drugs are either provided free of charge or are paid for entirely by the patients.

Organisation of reimbursement systems

While many countries divide their reimbursement system into 3 categories or reimbursement levels, there are different ways of defining these groups or levels. The Czech Republic and Slovakia divide pharmaceuticals into 3 reimbursement groups (fully, partly, or not reimbursed), Latvia groups diseases into 3 categories (100% compensation for the most serious, 70 and 50% for the less serious), while Cyprus classifies people according to 3 reimbursement levels: those entitled to free health care, those entitled to 50% reimbursement, and those not entitled to reimbursement. Bulgaria has 3 more unusual categories: pharmaceuticals which are fully covered by the national budget, drugs which are partially covered by the NHIF, and medicines covered by the MoH for veterans. Hungary applies a 'combined' system with 50 or 70% reimbursement for most diseases, but 90 or 100% reimbursement for people on public assistance and those with serious diseases. In Poland the type of drug and the type of patient are considered. While reimbursement in Slovenia normally is at 75% or 25% of the retail

price, specific groups of people (i.e. children, students or seriously ill) are by law fully covered by compulsory health insurance. Estonia has a rather complex system with 6 reimbursement categories depending on type of disease and type of patients. In general, co-payment is expected for all purchased pharmaceuticals, but the share which is reimbursed goes up for more expensive medicine and for more serious diseases (90 or 100%).

In some countries additional conditions apply if pharmaceuticals are to be reimbursed. In Hungary e.g. if a new drug is considered too expensive, the expert committee which determines reimbursement levels can require that a particular specialist prescribes the drug if it is to be reimbursed. Furthermore, people who suffer from severe chronic diseases, must have their drugs prescribed by specialists in order to benefit from 90 or 100% refund, while the 'socially deprived' must get their prescriptions from their family doctor and drugs must be dispensed from specially registered pharmacies if they are to benefit from 100% reimbursement. In Czech Republic specific conditions for reimbursement are defined by law, and include the diagnosis of the patient, the specialisation of the prescribing doctor or the need for approval by a review doctor.

It seems that all states are concerned with ensuring that the more vulnerable members of society have their pharmaceutical expenses covered, as levels of reimbursement are higher:

- for those suffering from serious/ chronic/ 'high cost' diseases⁶⁸ and
- for vulnerable social groups⁶⁹ (such as the disabled, those with mental disorders, pensioners, the unemployed, low income persons and families, children, students, pregnant women, war veterans and prisoners).

More odd does it seem that the President, ministers and MPs receive drugs free of charge in Cyprus. In Malta, while there is no reimbursement system in place, drugs are provided free-of-charge to people under a certain income level and certain population groups (Pink Card holders) and to people suffering from serious diseases.

The categories which consist of drugs which are fully or partially reimbursed are often considered as positive lists. In some countries partially or less refunded drugs are on the 'supplementary' list (i.e. in Poland) and on the 'intermediate' list (i.e. in Slovenia). Lithuania has two positive lists, one with the reimbursed drugs for specific diseases, and one with drugs for specified social groups. Romania has a positive list divided into two: one list with 100% reimbursed generic substances for 26 diseases, and one with generic substances for which 70% of reference price is refunded. Negative lists, including products which are not reimbursed, exist in Hungary, and

⁶⁸ This is the case in Hungary, Poland, Lithuania, Estonia, Latvia, Slovenia, Romania, Bulgaria.

⁶⁹ This is the case in Hungary, Poland, Lithuania, Estonia, Slovenia, Bulgaria, Cyprus.

Slovenia. Poland has a notional list for non-reimbursed drugs, and all social insurance organisations in Turkey have negative lists.

The criteria which influence the decision on whether or not to include a drug in the national reimbursement system are comparable, as all countries seem to take quality/ efficacy and costs into consideration. While drugs in Estonia have to be “medically effective and economically reasonable”, drugs in Latvia have to go through therapeutic and economic evaluation, which are similar to Lithuanian criteria which in addition become stricter for the more expensive drugs. In Hungary, drugs must meet criteria of quality and efficacy as well as cost-containment if it is to be placed on the positive list. Efficacy, safety and cost are considered in Cyprus. In Poland drugs must be inexpensive, known by doctors, essential for treatment, and go through a test-year, but there are problems with the transparency of criteria and discrimination against foreign drugs. In many countries, however, criteria are not clearly stated, e.g. in Romania, the health insurance law does not specify any details on how the positive list is to be made.

All the Central and Eastern European candidate countries and Lithuania, have introduced reference-pricing systems, often as part of an effort to reduce reimbursement costs. In 1995, a reference price system was introduced in Czech Republic and is a good illustration of how reference price can help to slow the increase in drug expenditures: in 1994, the General Health Insurance Fund’s per capita spending on drugs rose by 39%, in 1995 by 43%, but by 1996 the growth had slowed to 13% and in 1997 to only 4%. It is not known though whether the reference price system had a lasting effect. The three Mediterranean countries do not seem to apply reference prices.

Co-payments

Co-payments appear to be growing in many countries. In Slovakia the introduction of a reference price system and new drug categorisation has led to growing co-sharing. In 1996, co-payments accounted for SKK 2.45 billion, in 1998 for SKK 3.75 billion (though this also includes costs for some medical aids). Out-of-pocket payments in Lithuania are important as 70% of the population pay the full price of pharmaceuticals. In Slovenia, co-payments have increased since 1997 when a number of drugs were removed from the positive list, while drugs were added to the intermediate list. Out-of-pocket payments on drugs also remain significant in Bulgaria. However, as discussed in the section on informal payments above, in many accession countries informal and direct payments constitute a significant part of pharmaceutical expenditure.

Prescribing controls

Prescribing controls can be considered a direct consequence of the high pharmaceutical costs which most if not all the countries have experienced. Considering how problematic escalating pharmaceutical expenditure, economic constraints, over-spending and over-prescribing (which might be a 'leftover' from the socialist past of CEE and Baltic health care systems) are for many countries, it seems that not enough is done to contain costs. Some form of prescribing controls and cost-containment measures are in place in nearly all the countries, and in a country like Malta where they are not, authorities seem acutely aware of the need to influence prescribing practices. Also among the countries where measures are in place, there is an awareness that more could and should be done to control costs.

In Hungary despite serious overspending and over-prescribing, there are few control mechanisms, no financial incentives for doctors to limit costs, yet a computerised system which monitors prescriptions. In Lithuania although pharmaceutical expenditure is high, there are no measures to monitor, inform, or rationalise drug consumption. In Estonia economic constraints make it necessary to promote cost-conscious prescribing, yet until now only some practice guidelines have been put in place, with no financial incentives. In Romania rational prescribing is not yet legally required, cost-containment measures have been introduced on ad hoc basis and there is no formal national medicines policy. In Turkey unsuccessful attempts have been made to encourage the prescribing of generics. Finally in Malta there are no measures to monitor, control or analyse prescribing, or to encourage cost-effective treatments (only a strict procedure for authorisation of non-formulary drugs).

In Cyprus a drug formulary and practice guidelines exist and doctors must prescribe according to both. However, there are no monitoring systems to evaluate prescribing patterns. In the Czech Republic prescribing guidelines are in place (but only few on cost-effective prescribing), yet the General Health Insurance Fund has introduced guidelines for prescribing expensive drugs and plans to introduce negative practices (recommending what should not be prescribed). In Slovakia the MoH has issued recommended procedures which doctors must follow but these are rarely respected. In Bulgaria prescribing guidelines for GPs and formularies for clinical diagnosis are in place but are not respected by doctors. This is also the case in Estonia. In Poland there are plans to introduce a computerised database on prescribing behaviour and costs. Data will be fed back to doctors, and it would make prescription budgets for doctors possible. Information for patients and professionals about medicines is also planned.

Four of the thirteen candidate countries seem to apply more effective and better organised measures of cost-containment and control. In Latvia, for example, primary care doctors have to remain within their budgets and therefore have a strong incentive to limit costs by prescribing generics. In

the Czech Republic, the health insurance funds set spending limits for pharmaceuticals for each health care provider and penalise in case of over-spending, defined as 20% above the average or an annual increase in drug costs. In Poland several demand and supply side measures have been applied, as only the cost of the cheapest drugs are reimbursed by the state, pharmacists being required to dispense the cheapest pharmaceuticals, and guidelines on cost-effective prescribing being published regularly in bulletins together with reimbursement regulations. These measures seem to have had a positive impact since pharmaceutical costs dropped from 17.8% (of total health care spending) in 1994 to 8.9% in 1996, yet this does not take into consideration the increase in private spending on drugs.

Finally, Slovenia seems to be the country with the most advanced system of monitoring and controlling prescribing patterns, and there are plans to introduce new measures including an electronic database of medicinal products.

5.2. Public Health Infrastructure

The public health challenges facing policy makers in this region are clearly substantial but, in many cases, the public health response has been weak. An earlier analysis of the policy inaction on childhood injuries provides some clues as to why this has been so.⁷⁰ One problem was that worsening health in the 1980s was invisible. Data on health trends presented to politicians is often limited to easily understood aggregate measures, such as life expectancy at birth. While this has the benefit of simplicity it obscures the complex nature of mortality. In the CCEE in the 1980s it was recognised that life expectancy was stagnating but this concealed a substantial increase in mortality among young and middle aged men, which was counteracted by a steady fall in infant mortality⁷¹.

A second problem was a lack of public health capacity. Organisations responsible for public health were typically weak⁷². The Soviet model sanitary-epidemiological system had been very effective in tackling communicable disease in the post-war period but was unable to adapt to the challenge of non-communicable diseases.^{73 74} As in many countries, a career in public health was less enticing than many of the alternatives, thus attracting many of the weakest graduates, a situation exacerbated by the Soviet system of undergraduate specialisation in the Baltic States.

Public health functions can, of course, reside in many other settings, within government, academia, and non-governmental organisations. In many countries these functions were also weak or, in the case of non-

⁷⁰ McKee, Zwi, Koupilová et al. 2000

⁷¹ Chenet, McKee, Fulop et al. 1996

⁷² McKee, Bojan, Normand, 1993

⁷³ McKee, Bojan, 1998

⁷⁴ Bojan, McKee, Ostbye, 1994

governmental bodies, virtually non-existent. Many, although not all, national statistical offices confined their activities to the minimum necessary to satisfy the reporting requirements of WHO. In some places the academic public health community was somewhat stronger, but these were isolated examples.

A third issue was a lack of clear ownership. No-one was responsible for broadly defined population health. Finally, effective public health interventions often require working across sectors. However the widespread use of highly centralised vertical programmes conspired against collaboration at local level and central government ministries guarded their responsibilities jealously.^{75 76}

The situation has changed substantially since 1990 but there are still many problems. Analytic capacity remains weak. Some ministries of health have become even weaker than in the communist period. In many countries the public health system has remained relatively untouched by the process of reform, partly reflecting the low priority given to it by government but also their reluctance to adopt new ideas, in some countries due to corruption among a group that is invested with much discretionary power but low wages and little accountability.

New schools of public health, with staff who have received training abroad teaching modern public health concepts, have, however, emerged in several countries.⁷⁷ Some, such as the Hungarian School of Public Health in Debrecen, Hungary are now well established and use innovative learning methods, combining Masters and Doctoral level training with short courses. There are many examples of innovation, such as the establishment by the Hungarian School of Public Health of a network of sentinel health monitoring stations that provide data for research and teaching, as well as facilitating close links with public health practitioners. Elsewhere, several networks of academic centres have developed, such as BRIMHEALTH, established by the Nordic School of Public Health and bringing together centres in the Baltic Republics and North-Western Russia. Several of these centres, such as the Hungarian School are now participating in major international research programmes.

The Open Society Institute (OSI),⁷⁸ which has provided major support to all of these ventures, has recently established a major development programme, involving twinning with western Schools of Public Health and in partnership with the Association of Schools of Public Health in the European Region (ASPHER).⁷⁹ This aims to help established schools to

⁷⁵ Gorbachev, 1996

⁷⁶ Varvasovszky, McKee, 1998

⁷⁷ McKee, Bojan, White et al. 1995

⁷⁸ <http://www.soros.org/>

⁷⁹ <http://www.ensp.fr/aspher/>

develop further and to support the development of other nascent projects. The new institutions that are emerging will only become effective if they can draw on appropriate, locally relevant evidence on the causes of disease and the appropriate responses.

The challenges facing population health in the candidate countries of central and eastern Europe are considerable. Although life expectancy has improved considerably since the 1990s, when it was stagnating, the gap with the EU is only slowly closing. In some places old threats, such as tuberculosis, are reappearing and new ones, such as smoking among women and HIV, are emerging for the first time. But there are also many examples of success. Death rates from cardiovascular disease are falling rapidly in all countries. Transition-related increases in injury deaths are being brought under control. However, many of these successes owe more to wider societal changes, such as growing prosperity and opening of markets, than to specific public health policies. Unfortunately, the public health infrastructure remains weak in many countries.

Several needs are apparent. One is a greater number of people from a wide range of disciplines trained in modern public health. In some countries newly established schools of public health are already making a substantial contribution to this goal. These individuals need a secure career structure that rewards them sufficiently to ensure their retention and gives them the opportunity to use their newly developed skills to develop and implement the healthy public policies that are noticeable by their absence. These changes will only come about if politicians recognise the need to improve the health of their population, recognising that progress is possible and necessary.

5.3. Mental Health Trends in Pre-Accession-Countries

Mental health illnesses are some of the most significant components of the global disease burden. In addition to being leading causes of disability, mental health disorders adversely impact economies and social structures, particularly amongst nations in the midst of major political and socio-economic transitions. Countries in central and eastern Europe face considerable challenges, particularly since the incidence of mental illness in this region has not been matched with many of the reforms in treatment and rehabilitation that have been observed in the west.

The overall burden of disease in the former socialist countries⁸⁰ due to neuropsychiatric disorders is estimated at 17.2% (DALYs), the second highest ranking after established market economies (25.1%)⁸¹ and notably

⁸⁰ While the issue of mental health care is of significance to these countries, the lack of data on epidemiological trends for this region does not allow for exclusivity in this analysis. This section also includes information on Cyprus, Malta and Turkey.

⁸¹ Jenkins, Tomov, Puras et al. 2001

higher than the world average (12.3%).⁸² Whilst these rankings suggest that the prevalence of mental health illness is comparable to that found in western Europe and other developed countries, there is a general consensus that developments in both the treatment of mentally ill patients and the organisation of mental health services in eastern Europe has not kept up with reform measures that had been adopted in the west to improve conditions in mental health care^{83 84}

This is largely due to the historical legacy of eastern European countries where mental health care was not considered to be a high resource priority in health system funding and was characterised by large institutions in the form of psychiatric hospitals or asylums, a custodial rather than therapeutic attitude to patient care, and a reliance on pharmacological interventions.⁸⁵ The hierarchical systems of central planning made critiques of established practices and procedures difficult, and limited the ability of mental health institutions to react to both developments in the field as well as environmental challenges.⁸⁶ Moreover, for several decades psychiatry in the states of the former Soviet Union and Eastern Europe was isolated from western developments and from its evidence base in journals, conferences, and other modes of information exchange.

To a large extent, many of these features still characterise the mental health care systems in the region. The WHO report on mental health has identified several system and policy-level barriers to the implementation of effective interventions for mental disorders. (Table 16)

Table 16 Barriers to implementation of effective interventions for mental disorders

Policy Level	Health System Level
Limited mental health budgets – not meeting the extent of mental health prevalence	Large Tertiary Institutions
Mental health policy inadequate or absent	Stigmatisation, poor hospital conditions, human rights violations and high costs
	Inadequate treatment and care

⁸² World Health Organization, 2001

⁸³ Van Voren, Whiteford, 2000

⁸⁴ Roberts, 2002

⁸⁵ There is also a legacy of political abuse of psychiatry and incarceration in mental institutions as a means of repression in the former Soviet Union and some countries in Eastern Europe. The Geneva Initiative on Psychiatry, originally set up in 1980 as the International Association on the Political Use of Psychiatry (IAPUP), was established to lead efforts within many national and international psychiatric organisations to eliminate the systematic abuse of psychiatry.

⁸⁶ Tomov, 2001

<p>Mental health legislation inadequate or absent</p> <p>Health insurance that discriminates against persons with mental behavioural problems (eg. Co-payments)</p>	<p>Primary health care</p> <p>Lack of awareness, skills, training and supervision for mental health</p> <p>Poorly developed infrastructure</p> <p>Community mental health services</p> <p>Lack of services, insufficient resources</p> <p>Human Resources</p> <p>Lack of specialists and general health workers with knowledge and skills to manage disorders across all levels of care</p> <p>Psychotropic drugs</p> <p>Inadequate supply and distribution of psychotropic drugs across all levels of care</p> <p>Coordination of services</p> <p>Poor coordination between services including non-health sectors</p>
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Source: Adapted from WHO (2001:85)

Whilst it is difficult to generalise about all eastern European countries, the persistence of some commonly shared characteristics demonstrates that there are several challenges still facing mental health reform.

As with many countries in the world, mental health services in the region are poorly resourced making the successful implementation of reform even more difficult. EU candidate countries have a per capita health expenditure that is only one-fifth that of EU countries. Moreover, there are few mental health economic studies in psychiatry for the region (Shah, 2000). The subsequent lack of adequate economic evaluations of resource allocation formulas may hamper the cost-effective use of the few mental health resources that are available.

Funding is likely to move away from a current reliance on external donors (e.g. Open Society Institute) and become increasingly dependent on local sources, either government-based through state budgets or health insurance sources or from the private sector, through growing numbers of local foundations and charities. However, the high level of co-payments paid directly by patients for medical services, including mental health care, seems likely to continue. Moreover, the downward pressure on state funding for

mental health care and the decentralization of mental health financing (e.g. insurance funds on the municipal government level) may threaten both the availability of resources in the long-term and the delivery of care (Balicki, Leder, Piotrowski 2000).

Few countries in the region have produced detailed mental health strategies as opposed to broad policies. In one case, after years of pressure from the psychiatric association, the Bulgarian government has approved a mental health policy document that includes priorities and time frames but it specifies no mechanisms for moving from institutional to community care. In Malta, a mental health policy document detailing the importance of both a multidisciplinary treatment approach and shift to community based care has been approved by the Cabinet, however improvements have proceeded quite slowly.⁸⁷ Although a mental health policy and national program have existed in Turkey for several years, there is no national legislation on mental illness.⁸⁸ One consequence of the heavily institutionalised environment is that patients continue to be recipients of care that is custodial rather than therapeutic in nature. This is accompanied by attitudes of dependence in both staff and patients, fostering behavioural patterns that maintain a large gap between the two, and also has hindered the development of user-groups able to advocate improvements.

The development of mental health reform strategies has also been hampered by the lack of adequate epidemiological studies that assess true service “needs” based on actual levels of disease, severity, disability, and risk. Consequently, governments may rely on service use or “supply” data as a proxy for actual health care needs, thereby making the need for reform less apparent. Of course, public interest and attitudes can have a significant impact on the progress of reforms. Research in Poland completed in 1996 found that over 70 percent of survey respondents observed individuals with mental health disorders being disparaged by the use of terms such as crazy, idiot or abnormal. The same study performed three years later, found statistically negligible changes in results.⁸⁹

Moreover, the generally poor conditions within mental hospitals and care homes have given rise to concerns about protecting the human rights of institutional residents. For example, the violation of rights documented from 52 care homes in Hungary in 2001 included the restriction of patients’ movements (despite no legal authority to detain persons against their will); invasion of privacy, inadequate communication facilities, ineffective complaint and monitoring mechanisms, poor access to medical treatment, and the use of outdated medication. In addition, some of the care homes surveyed continued the use of severely restricting “cage beds,” despite international condemnation of the practice by disability rights groups as well

⁸⁷ European Observatory on Health Care Systems, 1999

⁸⁸ World Health Organization, 2000

⁸⁹ Czabala, Dudek, Krasucki et al. 2000

as The Council of Europe's Committee for the Prevention of Torture and Cruel and Inhumane or Degrading Treatment or Punishment. Hungary's 'guardianship' arrangements have also come under scrutiny where people considered to be mentally incompetent, including social care home residents, are placed under the authority of a third party who can control their place of residence, financial affairs, legal actions and medical treatments. The inadequate legal services and protection extended to medically ill people may place states at risk of litigation before the European Court of Human rights if they fail to adequately monitor and address problems in mental disability care.

Developing alternative means of treating people with mental disorders requires reform of traditional organisational structures as well as clinical practices. The polyclinic system inherited from the former soviet system does not yet provide a primary care system that is able to detect and treat people with common mental disorders. This is exacerbated by the fact that there is almost no community based care and it is often equated with outpatient or dispensary care. The transition to more community based care is hampered by a lack of funding and often ministries of health see deinstitutionalisation as a cost containment opportunity rather than as a policy of transferring funds to community care. In addition, the presence of health insurance schemes (either social insurance or private/voluntary insurance) may have little positive impact, as benefits are generally linked solely to biomedical health services. Community-based psychosocial services in Lithuania, for example, while not funded through the social services sector, are also excluded from health insurance cover. Furthermore, community social structures, including the role of the family, were weakened first under the former soviet-style systems and later with the strain of economic transition. Labour market difficulties, for example, have limited attempts to develop employment opportunities for those with mental illnesses. This has led to a lack of support for people with severe mental illness outside the framework of institutionalised care and a more limited capacity to develop NGOs in the mental health area.

Meanwhile, macroeconomic crises have also hindered efforts to develop alternative treatments. Many hospitals face severe budget constraints, and system-wide resources are insufficient to meet existing demands, let alone those of any community based services. With respect to economics on the service level, poorly aligned financial incentives have led to a desire among some hospitals directors to increase admissions, and not surprisingly, the lack of funding has led to poor quality care, low staff morale, and inadequate resources for even the most basic of necessities. Until recently in Poland, the allocation of funds amongst health care organizations was based on prior year budgets and involved no detailed analyses of costs. Under such schemes, there was little incentive to expand services, and efforts to develop community psychiatric services were limited (Langiewicz, Slupczynska-Kossobudzka 2000). Overall, the share of public funds in total health

expenditures has declined in Poland from roughly 90 percent in the 1980s to approximately 60 percent more recently. The continued push to reduce state financing of health care services, the growth of out-of-pocket costs, and the development of the private sector may erode access to services for the economically vulnerable, particularly as eastern countries face greater social and economic differentiation.

In addition, most east European accession countries as well as Turkey, Malta, and Cyprus, lack clinical protocols for patient management. This should include individual care planning that assesses psychological, physical and social needs, the management of these needs, continuity of care in the community and a routine audit of outcomes. The training of psychiatric personnel in Eastern Europe needs to be updated and expanded to reflect new developments and to counter the low therapeutic expectations that professionals tend to have when diagnosing and treating their patients. The availability of health information amongst professionals should be improved, as access to the Internet and commonly used medical databases is limited. Greater co-ordination of mental health services – and services for substance abuse (known as narcology services) - with the health and social sectors, as well as with non-statutory services and NGOs is also seen as crucial to addressing each patient's need and for successfully identifying and dealing with co-morbidity. Psychiatrists in Hungarian hospitals, for example, must often deal with alcohol and drug dependence, since the lack of adequate care networks or outpatient treatment options shifts the burden of this type of patient care onto hospitals where long-term beds are already in short supply (Tringer, 1999). In Poland, social workers (welfare officers) have not been trained in the evaluation and diagnosing of mental health disorders, although some progress has been made amongst occupational medicine practitioners. In Malta, although psychiatric care is provided through multidisciplinary teams, a shortage of physicians and a lack of incentives for doctors to enter psychiatry may limit access to quality service. Reliable and affordable access to appropriate psychotropic drugs also impacts on the effectiveness and quality of patient care. Currently, the supply of medicines is variable and often reliant on limited NGO supplies, dispensed through outpatient clinics.

In spite of the considerable obstacles facing mental health care reform, positive measures in many countries have been progressing incrementally since 1989. In Malta, a central Mental Health Review Tribunal exists to review instances of compulsory detention and ensure that human rights are protected and the largest psychiatric facility with over 600 mostly long-stay beds has been targeted for management reforms. Although the Estonian government does not yet have a formal mental health policy, it has passed legislation outlining both the rights of patients and criteria for involuntary treatment (World Health Organization, 2000).

Most CEE accession countries now have one or more psychiatric associations, and non-governmental health sector groups, such as relatives groups, psychiatric nurses groups, and at least 100 mental health NGOs have emerged in the region. Although many of these groups may face disinterested bureaucracies, university departments, and psychiatric hospitals, their influence can indeed be substantial, as demonstrated by the Bulgarian Psychiatric Association's lobbying of its Ministry of Health (Tomov, 1996). In 1993, the Network of Reformers in Psychiatry, a multi-disciplinary network that unites approximately 500 mental health reformers in 29 countries, was established. More than 100 non-governmental mental health organisations in the CEE are linked to this network which has become the impetus for reforms in mental health care across the region. Amongst its activities has been the development of pilot programmes, some of which have become examples of best practice for collaborative efforts in training and information exchange between professionals committed to implementing reform.⁹⁰

The Network has also adopted a model ethical code in 1998 and is actively working to disseminate the code amongst professionals in the region. Legislative reform of mental health acts is underway in several countries and service delivery systems are slowly developing away from custodial care institutions to alternatives such as community based services (the transition to community care has been implemented in the Czech and Slovak Republics and is at the development stages in Bulgaria). Community psychiatric nursing is available in parts of Cyprus, and NGOs there have worked jointly with some outpatient departments and counselling centres to serve drug addicts. The parliament in Cyprus has also approved legislation covering the rights of the mentally ill and the government has appointed a multidisciplinary team of professionals to monitor the quality of services.⁹¹ In Lithuania, having passed mental health legislation in 1995 concerning the rights and protections granted to individuals with mental illnesses, the government is now in the first stage of a ten year program on mental disease prevention.⁹² In Poland, associations of user groups have called for community based treatment, and there has been a reduction in the number of beds at large psychiatric hospitals along with an encouraging increase in the number of small psychiatric wards, day treatment hospitals, and mobile community teams. In addition, the Polish Mental Health Act and its subsequent amendments in the late 1990s embodied international pacts and conventions on human rights and helped provide legal protection for the rights of people with mental illnesses. Indeed, there is some evidence that

⁹⁰ Geneva Initiative on Psychiatry (1998) Network of Reformers. http://www.geneva-initiative.org/pages/general_info/annualreports/1998/reformers.asp Accessed 27 August, 2002.

⁹¹ World Health Organization. World Health Day 2001 Country Profiles: Cyprus. Geneva: WHO. <http://208.48.48.190/MNH/WHD/CountryProfile-CYP.htm>

⁹² Republic of Lithuania. State Program on Mental Disease Prevention. Vilnius: State Mental Health Centre, 1999. <http://www.vpsc.lt/laws.htm>

the use of physical restraints in Poland became less arbitrary as a result of new national protocols and regulations following the passage of the Mental Health Act.⁹³ Training courses in multi-disciplinary teamwork have been adopted in many countries and these developments have been augmented by the translation of academic and clinical evidence from western languages. Other initiatives aimed at closing the information gap are directed at establishing national publication programmes (Bulgaria, Lithuania and Romania) and the translation of the International Classification of (Mental) Diseases into CEE languages (Lithuanian and Romanian editions have been released).

Given the prevalence of mental illnesses as well as their social and economic impact, the need for significant reform in Eastern Europe is substantial. Fortunately, governments have begun to recognize the detrimental effects of mental disorders and have started to attack barriers to successful diagnosis, prevention, treatment and rehabilitation. However, despite some recent progress, additional resources and continued momentum are necessary to ensure that improvement initiatives do not suffer a disappointing fate.

5.4. Health of Minorities

Ethnic minorities make up an important part of the population, whether Gypsies in some southern and eastern European countries, or ethnic minorities in Balkan countries. Coverage and disparities in equity of access have become a bigger issue in some cases over the last few years⁹⁴.

An examination of the health of those living in candidate countries would be incomplete without a discussion of the health of the largest minority population in the region, and one with considerable and often poorly understood health needs.⁹⁵ Over 5 million Roma people live in the CCEE. Estimates suggest that they account for over 5% of the population in Bulgaria, Hungary, Romania, and Slovakia so they are a far from insignificant minority.⁹⁶ Originally from north eastern India, they began a slow westward migration about 1000 years ago. By the fifteenth century they were well established in the Balkans, with smaller groups throughout western Europe. At first they were welcomed, but the intolerance that accompanied the reformation and the rise of the nation state in the sixteenth century soon led to persecution. In the eighteenth century Austria-Hungary required Roma children over 5 to be taken from their parents and brought up in non-Roma families. In Romania, Roma people were kept as slaves until the 1860s. Up to 500 000 were exterminated in Nazi camps.

⁹³ Kostecka, Zardecka, 1999

⁹⁴ Paci, 2002

⁹⁵ McKee, 1997

⁹⁶ Brearley, 1996

In CCEE Roma people continue to exist on the margins of society, subject to widespread and often institutionalised racism. Although subject to attempts at forced assimilation by the post-war communist regimes, they were also afforded some protection, but this has largely disappeared in the 1990s, with an increase in racist attacks, often with semi-official approval. As a consequence, implementation of policies to protect the human rights of the Roma population has become an issue in accession negotiations in some countries.

Against this background, it is unsurprising that health policymakers and researchers have paid little attention to the health needs of Roma people, even though their distinctive way of life suggests these needs may be different from those of the majority population. Understanding these needs is inevitably complicated by the problem of defining the Roma population because of their reluctance to identify themselves and enforced assimilation. However what evidence exists suggests that life expectancy is considerably lower (up to 10 years) than that of the majority population infant mortality is up to four times higher.⁹⁷ Information on the causes of their high levels of premature death is subject to the uneven pattern of research, which has focused on genetic or infectious disorders (symbolising the risk of contagion of the majority population) rather than non-communicable diseases,⁹⁸ the rates of which reflect their poverty, lack of education, overcrowding, and unemployment from which they suffer.⁹⁹

There is a particular lack of knowledge about access to health services and how to provide them appropriately. Ethnographic research among Roma people has described a strongly held set of health related beliefs in which some diseases are seen as Roma, and thus treated by traditional healers, and others as due to contact with the outside world, requiring the services of the formal healthcare system.¹⁰⁰ Relations with the majority population are governed by a series of rules about what is pure or impure. There are also a range of specific rituals dealing with birth, death, and caring for the ill. These can lead Roma people to accept some aspects of care and reject others, behaviour that is often seen as irresponsible for not fitting in with the norms of the majority.

The challenge facing the public health community in the CCEE is how to involve the Roma population in both the research that is needed to understand their health needs better and the responses to them. Too often the Roma population have been subjects, rather than participants in these processes.

⁹⁷ Braham, 1993

⁹⁸ Hajioff, McKee, 2000

⁹⁹ Koupilova, Epstein, Holcik et al. 2001

¹⁰⁰ Fonseca, 1995

6. POTENTIAL IMPACT OF ACCESSION ON HEALTH AND HEALTH CARE IN PRE-ACCESSION COUNTRIES

While several candidate country populations have a health status similar to the EU average, some have a way to progress before matching indicators such as life expectancy. There remains a wide disparity in available resources for health between the Member States and all candidate countries. As healthcare remains the preserve of national governments rather than the EU, accession will not directly address the health care aspect of the health gap. However, a wide range of EU legislation will indirectly affect health and healthcare in the candidate countries.

Membership of the EU brings with it the right to the free movement of people, goods and services anywhere within the EU borders. This right has implications for the movement of both health professionals and patients across borders. In terms of health professional movement, examination of patterns within the current EU member states shows very low levels of migration. However, the candidate countries now preparing for accession have, in general, a much lower level of funding available for health care resources and staff salaries compared with other recent new EU members such as Austria and Finland. Consequently, fears have been raised that there may be widespread professional movement from some candidate countries to more well off current EU member states with staff shortages (Nicholas, 2002). On the more positive side regarding health professionals, evidence from Poland and other candidate countries shows that preparations for accession are resulting in improved nurse education and general broad reviews of the education of health professionals (Zajac, 2002). The situation regarding any implications for health systems as a result of patient movement across borders remains somewhat unclear. The European Court of Justice has made a number of rulings on the issue which appear to allow some limited cross-border movement additional to the basic EU schemes already in place (such as provisions for students or tourists away from their home country). If free movement of all patients becomes legally simple, health systems in candidate countries may benefit through offering competitively priced health services to patients from other countries. There might also be concerns for national health budgets in less well off candidate countries should large numbers of their citizens seek more costly health care in other EU member states (Busse, 2002). The issue of widespread 'informal' payments requested of patients in a number of candidate countries (Lewis, 2000) may however complicate true free movement of patients across borders into the candidate countries.

Aside from the legal implications for health systems that EU accession will bring for candidate countries, the accession process has already started bringing in additional funding from the EU and other donors for accession related activities. Although the PHARE programme has been criticised for

giving inadequate attention to health, some health system reforms and strengthening of health and safety systems have received additional funding through this programme¹⁰¹. However, the overall very limited support for health in candidate countries as part of the accession process may hinder adequate preparation for integration into common EU health programmes, such as the communicable disease surveillance networks¹⁰².

Most EU accession countries have introduced legislation incorporating elements of the *acquis communautaire* on pharmaceuticals. Yet much work remains to be done in the areas of intellectual property and regulation. The proprietary industry seeks the highest possible protection while candidate countries' own pharmaceutical industries may profit from greater access to the enlarged EU market. Patients may benefit from safe and efficacious products that meet EU-wide standards. However, the cost of new medicines may outweigh the resources available in many candidate countries, and reimbursement differences across insurance systems may create access problems for certain population groups.¹⁰³

Accession may also bring about some more direct benefits for health. As part of the preparation process, candidate countries are adopting the health and safety legislation of the EU. Although not comprehensive and sometimes criticized for a lack of monitoring and applicability to small enterprises,¹⁰⁴ standards may be improved somewhat through accession for countries with weak worker health protection. Similarly, for countries with historically weak health promotion track records, the need to adopt EU legislation on tobacco control is likely to bring about some health improvements in relation to the current high burden of tobacco associated illness in most applicants.¹⁰⁵ However, on the other hand, there are concerns that some countries, such as Poland, with stronger tobacco control legislation than the EU may be forced to weaken their high standards.¹⁰⁶ Whether this concern is justified remains to be seen. However, experience of past accessions, such as that of Finland in 1995, which had to weaken strong alcohol control measures, shows that trade is often given the upper hand over public health in EU matters.¹⁰⁷ The participation of the candidate countries in the EU disease surveillance networks will bring benefits for health for the whole enlarged EU region although further support for this participation is needed.¹⁰⁸

¹⁰¹ Rosenmuller, 2002

¹⁰² MacLehose, McKee 2002

¹⁰³ Rosenmuller, 2002

¹⁰⁴ Wright-Reid, 2002

¹⁰⁵ Delcheva, 2002

¹⁰⁶ Gilmore, Zatonski, 2002

¹⁰⁷ Osterberg, 2002

¹⁰⁸ McKee M, MacLehose, 2000/2001

7. POLICY DISCUSSION

During the 1990s, health care systems in CEE undertook sweeping and ambitious reforms to health care financing systems. As key measures, the reforms aimed at:

- switching to social insurance to be complemented by voluntary insurance with the concomitant need to define both benefits and beneficiaries;
- decentralisation to regional purchasers or insurance funds with national pooling through the use of needs based resource allocation e.g. risk adjusted capitation; and
- the introduction of performance-related purchasing e.g. contracting and new remuneration methods for providers.

Health insurance was expected to eliminate the subordinated role of the state-socialist health care system, and to ensure stable, growing resources. Moreover, the autonomy of health insurance funds and performance-related provider payment was expected to make health insurance funds efficient purchasers of health care services. Allowing them to identify and reward high performance providers was expected to improve the efficiency and quality of the health care services, including improved responsiveness to patients.

However, in practice, revenues generated by social health insurance were limited and therefore governments often were forced to continue funding health care through general tax revenues. Voluntary health insurance developed slowly or failed. The costs of health care in many countries were shifted onto the individual in the form of formal and informal user charges. Mechanisms for pooling resources were inadequate and in many cases fragmented pools developed with different insurance funds and different regions and in some cases between taxes and social insurance contributions (with the former controlled by the ministries of health and the latter by the newly created health insurance funds). Purchasers were unable to utilise contracting to elicit efficiency gains or to use incentives to increase the responsiveness of providers.

The expectations of reform have yet to be fulfilled, partly due to the:

- weak macroeconomic context,
- low levels of employment and formal sector activity,
- low compliance and high levels of corruption,
- lack of transfers to health insurance from taxation or from other social security funds,
- failure to define a core benefits package,
- maintenance of universal entitlement without sufficient funding,
- decentralisation and fragmentation of pooling,

- inadequacy of information, technical capacity and political will to establish needs based resource allocation mechanisms,
- inadequacy and low predictability of funding,
- low operational autonomy of providers,
- the lack of information and the lack of technical and management skills for contracting,
- fragmented public sector pooling and purchasing,
- poor complementarity of design of provider payment methods,
- institutional impediments,
- financial deficits,
- monitoring capabilities of purchasers of provider quality.

Overall, the reform measures failed to produce the necessary conditions, such as adequate incentives, information, and organisational frameworks, that would make the key actors of the health care system accountable for their decisions.

Tackling these issues will not be simple. There are no straightforward alternative policy solutions, nor a linear process for establishing the necessary conditions.

Strategies for reforming health care financing and delivery are highly dependent on the context within which they must be implemented. One factor is the nature of the system that has been inherited, with its domination by hospitals and underdevelopment of primary care.¹⁰⁹ Another contextual factor is the legal and financial framework that is in place. Work by development economists has highlighted the importance of issues such as property rights, banking systems and access to funds for investment. For example, an early attempt to privatize some Czech hospitals was unsuccessful because of the lack of legislation governing not-for-profit organizations.^{110 111} The political context is also important. Major reform requiring primary legislation relies on a combination of skills to design the law and to steer it successfully through the legislative process. It also benefits from a degree of political stability, something that has been rare in health ministries in this region in the past decade.^{112 113}

¹⁰⁹ Field, 2002

¹¹⁰ Busse, Petrakova, Prymula, 2001

¹¹¹ Most attempts to privatize facilities in this region have failed. There are many reasons for this. First, it was recognized too late that only in rare cases is there a good business case for a general hospital. In particular, the conversion of old facilities – with a more than 20-year history of under-investment in infrastructure and equipment – is extremely costly, if not impossible. Most operators would not even be in a position to pay energy costs at market rates. Second, there has been a failure to exploit the full spectrum of the market, as indicated by the resistance of public officials to recognize that the only value for the market may be the land on which a hospital was built.

¹¹² Busse, Dolea 2001

¹¹³ Delcheva, Balabanova, 2001

1.1 Facing the challenges of health care financing

On the funding side, three important areas demand consideration. First, the implementation of effective health insurance systems, which has been central to financing reform in a large number of countries, has proved problematic. General government revenues often continue to play a significant funding role, despite the switch to social health insurance contributions. There is now a substantial body of evidence that helps to explain this and other experiences of implementing insurance. Where social insurance has been seen to fail, failure can be attributed to: the weak macroeconomic context; the reliance of poorer countries on out-of-pocket payments and general taxation; low levels of employment and formal activity within labour markets; poor compliance and high levels of corruption; and lack of transfers from tax or social security funds to health insurance. Tackling these issues will not be simple. Wider economic recovery and institutional capacity-building may go some way towards increasing the revenue collected through payroll taxes but further efforts to ensure compliance will also be necessary, including dealing with corruption. In higher income countries with higher levels of formal employment (namely the Czech Republic, Estonia, Hungary, Slovakia and Slovenia) social insurance appears to have been an effective way of mobilizing resources for the health sector. Lower income countries in the region such as Romania, with little formal employment, found that insurance contributions were not viable. Further efforts to ensure compliance are necessary. However, the delegation of responsibility for revenue collection to quasi-state agencies or independent insurance funds has created significant challenges for the state in this respect. Lack of compliance in the health sector is likely only to be solved if corruption in the wider economy is reduced.

Second, addressing informal payments must be a major priority in many countries. Data on their extent in a range of eastern European countries suggest they are widespread in both ambulatory and hospital care, and that in a small number of former Soviet Union (FSU) countries they form the largest source of funding. Informal payments are a response of the health care system, particularly providers, to the lack of financial resources and a system that is unable to provide adequate access to basic services. Cultural and historical factors also help determine the response of patients, although the implications for access, equity and indeed efficiency are highly problematic. Formalizing payments and establishing systems of pre-payment (or insurance) is extremely difficult none the less, and requires considerable government and technical capacity and the explicit recognition of external constraints.

Finally, defining a more realistic benefits package will be a key strategy in ensuring financial sustainability. The commitment to fund both universal coverage and a truly comprehensive benefits package is unrealistic and

unsustainable in many countries in the region. Despite political and technical difficulties and concerns about equity, countries may need to consider explicitly defining more limited entitlements to ensure that public revenues are targeted at the most cost-effective interventions and the poorest segments of society and protect public health. As revenues increase, so too will the benefits and the levels of coverage, thus providing a motivation to the population and employers to comply.

On the purchasing side, two areas of reform have been particularly important. First are efforts to enhance the cost-effective purchasing of services through the separation of purchaser and provider functions; ascribing purchasing functions to insurance funds; and employing contracts as the main tool for resource allocation. The introduction of these new models in CEE has been challenging for a number of reasons, including: the inadequacy of funding and the unpredictability of funding flows; low provider autonomy; the absence of routine information systems; a lack of timely information; and sparse technical capacity and information management skills. Second, the introduction of performance-related payment systems for providers is a widespread strategy for enhancing efficiency. Capitation has been introduced for primary care services in many countries, and it is common for new hospital payment systems to be developed that link payment to a defined unit of hospital output. The results to date have been mixed. This is due to a number of issues including the fragmentation of public sector pooling and purchasing; poor design of payment systems that do not dovetail or complement each other; institutional impediments and vested interests; the financial deficits of public providers; and limited capability to monitor inputs or outcomes.

To move towards fulfilling the aims underpinning the reforms of health financing, both funding and resource allocation need further attention. Mechanisms for pooling resources need to be strengthened with other sources of public expenditure included with social health insurance contributions to ensure the most cost-effective use of funding. Where multiple funds or regional governments currently collect revenues and are expected to reallocate resources to poorer/ high risk funds or regions, revenue collection could be centralised and resources allocated based on a simple risk adjusted capitation. This would overcome some of the inefficiencies in having multiple collection agents and the difficulties of establishing national pooling through reallocation.

The technical and administrative capacity of purchasers also needs to be strengthened to exert maximum pressure for provider efficiency. This requires the development of information and monitoring systems that can deliver timely and accurate data on provision and the training of personnel to use this information effectively. Similarly, government regulation and stewardship will be vital in ensuring that purchasers act in the best interests of the population.

Regardless of how well the collection and pooling of funding is organized and the extent to which resource allocation is enhanced, these can only be means to an end. The ultimate end-point is an improved impact on health outcomes, which depends in turn on the quality and cost-effectiveness of the services provided. Arguably, the initial focus of much of the reform effort in CEE on creating a structure of financial incentives has been at the expense of the reform of health care delivery itself. Clearly, the incentives created have not proved sufficient to prompt the “spontaneous” improvements in the delivery systems. Indeed, it now emerges that for these financial reforms to succeed in their overarching objectives they need to be accompanied by an independent, in-depth but articulated reform of the provision of care.

Another option is to further diversify funding sources e.g. through subsidies from other forms of taxation or by pooling out-of-pocket payments. Transfers from other public sources already do or should occur. These need to be transparent and need to ensure that funds are not penalised (e.g. by reduced subsidies¹¹⁴) for increasing their revenue and/ or efficiency. Where there is a large informal economy, direct taxation (i.e. taxes levied on income or profits) is likely to face similar problems of compliance as social health insurance. However, it places less of a direct burden on labour costs and may therefore have less negative consequences for the development of the economy. Indirect taxes (i.e. taxes levied on goods and services) are more visible and may be less easily evaded. However, they are more regressive.

Experience from low and middle-income countries outside Europe, with for example community health insurance, suggests that formalising out-of-pocket payments and establishing systems of pre-payment (or insurance) will be extremely difficult. Informal payments are partly a response of the health care system, particularly health care providers, to the lack of financial resources and the response of patients to a system which is unable to provide adequate access to basic services. Governments should ensure that the limited resources are targeted more effectively in order to secure access to basic services, for example by shifting resources from secondary and tertiary care to primary care. Willingness to contribute to a formal system of pre payment should be higher if there are clear benefits and patients are not also expected to pay informally.

Financing systems are only one among many factors needed to cope effectively with the undoubted inefficiency within the health sector, in whichever context. The multifaceted problems faced in the region demanded

¹¹⁴ There is some evidence to suggest that those countries which shifted to social health insurance were better able to maintain levels of spending on health care (Preker et al 2002). However, anecdotally social health insurance revenues were simply used to substitute for general revenues by the Ministry of Finance and overall funding for the health sector did not increase as a result of the introduction of social health insurance contributions.

a well-conceived and long-term health care sector reform strategy, with specific programs, a clear governance framework, skilled and committed health care management and administration, and support from health care professionals and the public for the aims and goals of the reforms. Unfortunately, none or few of these elements have been assembled so far in the region to the extent needed.

7.1.Improving Hospital Performance

Strategies to improve hospital performance must act at many levels. Ultimately, governments retain responsibility for overall health system performance. They, or agencies acting on their behalf, are responsible for ensuring that there is an overall strategy for promoting health that includes the health care sector, and that identifies the resources that the health care sector needs to work effectively. These resources are not simply financial. The health care sector can function effectively only if it has access to trained staff, means of ensuring their optimal distribution, systems for procuring and distributing appropriate technology and pharmaceuticals (while limiting acquisition of inappropriate items), and methods for raising capital for investment in facilities. In addition, the system requires a facilitating environment with functioning financial, regulatory and legal systems.

Similar issues confront those working in hospitals. High-quality care involves attention to inputs (people, facilities and equipment), to processes (linking management of resources to quality assurance) and to the environment, in particular a supportive culture (McKee, Healy, 2002).

The most important and the most expensive resource available to a hospital is the staff that work in it. Yet this resource is often extremely poorly trained and managed. This section focuses on two key issues – skill mix and good employment practices.

In many candidate countries, the roles adopted by different professional groups, such as doctors and nurses, have changed little despite the enormous changes in medical practice. Responsibilities remain rigidly demarcated. Yet many western European countries have seen major changes in how different health professionals work. One change has been substitution, with nurses in particular taking on many roles previously regarded as requiring a physician (Shum, Humphreys, Wheeler et al. 2000) This includes both a greatly extended technical role (for example in intensive care units or performance of endoscopies) but also responsibility for the routine management of common diseases such as asthma and hypertension, including prescribing within guidelines. Another change has been the creation of new occupational groups, such as phlebotomists to take blood samples.

As the attractions of employment in the private sector increase, it will become more difficult to retain skilled staff in the health sector. One issue is, inevitably, money. Unless salaries are competitive, recruitment and retention are bound to be difficult. But people also have other expectations (Grindle, Hildebrand, 1995). One is to provide a system of educational development, recognizing the importance of life-long learning. Another is to recognize the changing composition of the workforce in many countries by adopting family-friendly policies, such as workplace crèches and opportunities for part-time work. A third is to create a sense of ownership by involving staff at all levels in decision-making.

There is also increasing recognition in wealthy countries of the ethical dilemma in accepting migrant health professionals who are in search of better living conditions, more opportunities and a better life for their families. This is not only an important “brain drain” from countries in this region but is also an economic hardship for countries that fund the education of health professionals who are then not available to the local health care market.

Management also involves ensuring that those who are employed are actually contributing to the work of the organization. This means tackling abuses, such as unauthorized private work undertaken from public facilities. It also means tackling sickness absence. High levels of sickness absence are more likely to indicate a problem with the organization than the individual and, where they exist, should provoke questions as to why people do not seem to want to come to work.

One reason might be the state of the premises. Some health care facilities were obsolete 20 years ago and have since deteriorated further. They may be totally inappropriate for current models of care. Too many health care facilities do not take account of the fact that many people who use them will be disabled or partially sighted. Their configuration often physically separates departments that should be working together. Conversely, emphasis on the hospital as an institution often acts as a barrier to alternative ways of providing care, such as freestanding facilities for non-urgent surgery or minor injury units. Financing mechanisms often provide a strong disincentive to investment in renewing facilities.

The third input is appropriate technology. Some of the first people to take advantage of the opening of borders in the early 1990s were selling medical technology that was either unaffordable or unnecessary. Partly in response to these excesses, some countries have developed health technology assessment programmes or are drawing on assessments undertaken elsewhere, but there is still much to be done to ensure that the distribution of medical technology supports the development of integrated care. Moreover, some elements of the multinational pharmaceutical industry have taken advantage of the breakdown of continuing medical education and medical ethics, as well as low salaries and the receptiveness to free-market practices.

In many countries, these companies provide the only continuing medical education available, resulting in product bias and sales incentives that ultimately hurt the consumer.

The final issue in relation to hospital performance has emerged from research on the relationship between organizational culture and quality of care. This research has found that hospitals that are seen as good places in which to work, with ease of communication between different professional groups and an open process of decision-making, achieve better outcomes. Conversely, major organizational change can have profound implications for the hospital workforce; while hospitals must adapt to their changing environment, radical restructuring may damage staff morale and so adversely affect the quality of patient care (Aiken, Sochalski, 1997)

7.2. The interface between primary care and secondary and tertiary care

Interfaces have two qualities. One is that they provide an opportunity to insert filters so as to limit who crosses them, for example to ensure that referrals are appropriate. Second, they should facilitate movement for those who meet the criteria to cross them, ensuring that not only the patient moves freely but also the information that is required to optimize his or her treatment (Hensher, Edwards).

There are two important interfaces between primary care and hospitals. The first is the inward interface, through which patients are referred to hospital. The second is the outward interface, across which they are discharged. Each raises different issues. In addition, many patients (especially those with chronic diseases) will move repeatedly across both interfaces, raising important problems of coordination.

Turning first to the inward interface, there is evidence from many countries that many patients admitted to hospital would be more appropriately managed in a different setting. These studies also show that, in most cases, a more appropriate setting does not exist. (Coast, Inglis, Frankel, 1996). Yet some things can be done. One way is to look at how common diseases are managed and whether more could be undertaken within primary care. Another is to recognize that many patients are admitted to a hospital ward for a period of observation and investigation to decide whether they require further treatment. This has led to the creation of medical assessment units, which enable a coordinated series of investigations to be undertaken without admitting the patient to an acute ward. A third approach relates to non-urgent surgery, where the advent of short-acting anaesthetic agents and new surgical techniques has made it possible to perform many operations without admitting people to hospital.

The outward interface, through which patients are returned to the community, can also be made to work more effectively. Once again, one challenge is to create the appropriate settings for care. These may include a

variety of types of residential facility for the most frail, various types of rehabilitation facility, or the strengthening of community support to enable people to remain in their own homes. A second challenge is to place sufficient emphasis on discharge planning. Ideally, this should begin as soon as the patient is admitted to hospital, thus ensuring that all necessary arrangements are put in place for their discharge. Good communication between the hospital and the referring doctor is a crucial aspect of high-quality, cost-effective follow-up after discharge, but in several candidate countries this is still poorly developed.

7.3. Developing primary care

The final issue facing policy-makers as they reform health care delivery is the strengthening of primary care. In the Soviet model, primary care was the “poor relation” of the hospital sector. Staff were poorly paid and of low status, and the inadequacy of their facilities and equipment meant that their role was limited to referring for specialist care or regulating sickness absence.

All countries have accepted that this must change (Rico A, Saltman, 2002). In some cases progress has been considerable; in others it has only just begun. Reform should focus on two broad areas. The first is organizational reform that will give primary care more power and control over other levels of care. This typically involves giving primary care professionals or institutions new ways of steering patients to the most appropriate care setting, whether in hospital, nursing home or their own home. Where these reforms have been successful they have enhanced the position of primary care at the centre of the different health care delivery sectors, facilitating a process of “virtual integration”.

The second area is organizational reform to expand the range of services and functions of primary care. This includes the provision of new or enhanced services as well as the adoption of services previously delivered at other levels of care. New services fall into several categories. Some were either not previously provided (such as rehabilitation) or were often underprovided (some health promotion measures). Others were provided at other levels (hospital or community care), thus reflecting “substitution” by primary care as the new provider. Substitution, in turn, encompasses both total substitution, in which primary care provides the entire service (as in minor surgery or specialized diagnostic services) and partial substitution, in which primary care collaborates with other levels to produce the service (as in shared care programmes). The reform of primary care, with the strengthening of family medicine, will play a key role in achieving these goals.

7.4. Restructuring Health Care Delivery

Too often, reconfiguring hospitals is seen simply as a matter of closing hospital beds. The reality is much more complex (Healy, McKee, 2002). As noted above, in the pre-transition model of health care the hospital was dominant. Yet hospital care was also highly fragmented. As well as the geographical hierarchy, with the most specialized facilities in capital cities and sometimes extremely basic facilities in rural areas, hospitals were also classified according to the diseases they treated and the occupations of the patients they admitted. Another factor was that some hospitals were also built for military purposes, as a strategic reserve in case of war. As a result, many medium-sized cities have inherited many different hospitals with few links between them. Compared with western Europe, hospital capacity seemed excessive. Basic indicators, such as the number of hospital beds per 1000 population, suggest levels of provision that are about 50% higher than in the west. It is, however, too simplistic just to say that this excess capacity should be closed. This argument fails to recognize the very different nature of hospitals in many countries in this region. Unlike those in western Europe, they remain the main providers of social care as well as health services. Nevertheless, this model is rarely the most humane or cost-effective means of service provision. Western European countries, which once used this model, now provide most social care through mobile community outreach services or by supporting families through cash transfers. Shortage of appropriate technology, a failure to develop alternatives in the community and lack of knowledge of alternative models of care mean that there are few other options for many patients. Closure will be essential at some stage, but it must proceed in tandem with reconfiguration and the development of more appropriate care packages.

The challenge is to develop a network of facilities that provide care in the setting that is most appropriate. This may mean radically rethinking the nature of the hospital and querying whether the traditional groupings of services are still appropriate. Several countries have inherited a wasteful duplication of services.

Beginning at the front of the hospital, emergency departments typically combine many different functions, such as management of both major and minor trauma, substituting for primary care, observation of patients for whom the diagnosis is in doubt, and acting as a waiting area for those being admitted to wards. In trying to do all of these things, emergency departments often fail to do any of them well (Edwards, 2001). Clearly these roles could be separated, with an intermediate structure diverting patients to more appropriate settings. In some cases, such as observation units and minor injury centres, these facilities may need to be created.

As hospitals admit fewer but sicker patients, the demands placed on medical and surgical units are also changing. In addition, in specialties such as gastroenterology, changing technology means that increasing numbers of

patients require the combined skills of surgeons and physicians. These developments are leading some hospitals to reconfigure their inpatient facilities in terms of the severity of the condition rather than specialty.

The majority of patients attending an outpatient clinic in one of the major surgical specialties will have with one of perhaps three or four conditions, each requiring a standard set of investigations. There is enormous scope for systematizing their management by creating integrated pathways, such as those in “one-stop clinics” (Waghorn, McKee, Thompson, 1997)

Looking to the future, developments such as near-patient testing and new forms of imaging will change the way in which laboratory and radiology facilities are provided.

The implication is that hospitals should be designed with inbuilt flexibility. The precise nature of health care delivery in the future may not be predictable. What is certain is that it will be different from what it is now.

7.5. Implementing Change

Successful change requires that certain conditions be in place. These often involve a mix of new mechanisms or related institutional changes. They include changes in technological resources (e.g. telematics) and human resources (e.g. new training and skill-mix arrangements) employed in primary care settings. Change also requires policies that increase the autonomy of primary care, promote teamwork, create incentives for coordination with other levels of care, and increase the quality and responsiveness of service provision. This may require a generational change, since in most countries the current medical education system is poorly suited to the new situation confronting primary care.

Similarly, there is a need to incorporate modern public health concepts at all service levels. A functioning interface is needed with all levels of clinical service and public health. In many countries this will be extremely challenging, as the current SANEPID system often operates in virtual isolation from clinical practice, resulting in a costly focus on medicalized interventions and a dependence on technology (much of which is obsolete) at the expense of population-based preventative interventions.

Ultimately, the success or failure of reform will depend on the impact of reforms on the societal objectives of health improvement, equity and efficiency, and on the extent to which health systems respond to consumers. There are no simple solutions to the challenges faced. Rather, complexity must be an inherent factor in any realistic approach to balancing affordability and effectiveness in what is an immensely complex environment surrounded by powerful interest groups. Policy-makers need therefore to address stewardship and to take a whole-system perspective, adopting a clear health strategy and sponsoring effective regulatory systems

so as to provide the framework that health care purchasers, providers and public health professionals need. This paper gives some indication of the degree of complexity and the elements they will need to combine. The extent to which these different elements will combine in any given country to have an impact on health outcomes remains open to debate, and is an area where national policy-makers must bring their expertise to bear.

8. REFERENCES

- Aiken LH, Sochalski J. Hospital restructuring in North America and Europe: patient outcomes and workforce implications. *Med Care* 1997; 35 (10, Suppl.): S13–S25.
- Balicki M, Leder S, Piotrowski A. Focus on psychiatry in Poland: Past and Present. *Br J Psychiatry* 2000; 177: 375-81.
- Bara A.-C, van den Heuvel WJA et al. Reforms of Health Care System in Romania. *Croatian Med J* 2002; 43: 446-452.
- Becker N, Boyle P. Decline in mortality from testicular cancer in West Germany after reunification. *Lancet* 1997;350:744.
- Bobak M, Brunner E, Miller NJ, Skodova Z, Marmot M. Could antioxidants play a role in high rates of coronary heart disease in the Czech Republic? *Eur J Clin Nutr* 1998; 52: 632-6.
- Bobak M, Marmot M. East-West mortality divide and its potential explanations: proposed research agenda. *BMJ* 1996; 312: 421-5.
- Bobak M, McKee M, Rose R, Marmot M. Alcohol consumption in a national sample of the Russian population. *Addiction* 1999; 94: 857-66.
- Bobak M, Pikhart H, Hertzman C, Rose R. Marmot-M Socioeconomic factors, perceived control and self-reported health in Russia. A cross-sectional survey. *Soc Sci Med* 1998; 47: 269-79.
- Bobak M, Skodova Z, Pisa Z et al. Political changes and trends in cardiovascular risk factors in the Czech Republic, 1985-92. *J Epidemiol Community Health* 1997;51:272-7
- Bojan F, McKee M, Ostbye T. Status and priorities of public health in Hungary. *Zeitschrift für Gesundheitswissenschaften* 1994; Suppl 1: 48-55
- Braham M. The untouchables: a survey of the Roma people of central and eastern Europe. Geneva: UNHCR, 1993
- Bray I, Brennan P, Boffetta P. Projections of alcohol- and tobacco-related cancer mortality in Central Europe. *Int J Cancer* 2000 ; 87: 122-8.
- Brearley M. The Roma/gypsies of Europe: a persecuted people. London: Institute for Jewish Policy Research, 1996
- Britton A, McKee M. The relationship between alcohol and cardiovascular disease in Eastern Europe: explaining the paradox. *J Epidemiol Comm Health* 2000;54:328-332.
- Bultman J. Experience with Changing the Benefit Package in the ECA Region, internal working draft. Washington DC: World Bank, 2002.
- Busse R. Border-crossing patients in the EU. *EuroHealth* 2002; 8 (4); 19-21.
- Busse R, Dolea C. Hospital reform in Romania. *Eurohealth* 2001; 7 (3): 57-60.

Busse R, Petrakova A, Prymula R. Implementing hospital reforms in the Czech Republic. *Eurohealth* 2001; 7 (3): 29-31.

Chakraborty S. Poverty and Health in ECA Region, prepared for the ECA HNP Business Plan. Washington DC: World Bank, 2002.

Chawla M., Evaluation of Health Insurance Reforms in Poland," Washington DC: World Bank, 2000 (unpublished report).

Chenet L, McKee M, Fulop N, Bojan F, Brand H, Hort A, Kalbarczyk P. Changing life expectancy in central Europe: is there a single reason? *J Publ Health Med* 1996; 18: 329-36.

Chinitz D. et al. "Balancing competition and solidarity in health care financing. In *Critical challenges for health care reform in Europe* Saltman, R. B., et al., eds., Buckingham: Open University Press, 1997.

Coast J, Inglis A, Frankel S. Alternatives to hospital care: what are they and who should decide? *BMJ* 1996; 312: 162-6.

Cockerham WC. Health lifestyles in Russia. *Soc Sci Med* 2000; 51:1313-24

Czabala JC, Dudek B, Krasucki P, Pietrzykowska B, Brodniak W. Mental health in the workplace, situation analysis: Poland. Geneva: The International Labour Office, 2000.

Delcheva E. Implementing EU tobacco legislation in Bulgaria: challenges and opportunities. *EuroHealth* 2002; 8 (4); 34-36.

Delcheva E, Balabanova D. Hospital sector reform in Bulgaria: first steps. *Eurohealth* 2001; 7 (3): 42-46.

Dixon J. Learning from International Models of Funding and Delivering Health Care. *Oxford Handbook of Public Health Practice*. D. Pencheon, C. Guest, D. Melzer and J. A. M. Gray. Oxford: Oxford University Press, 2001. pp 334-341.

Dobson R. AIDS--dramatic surge in ex-Soviet Union, no respite worldwide, new data show. *Bull World Health Organ*. 2001; 79:78.

Duran A, Sheiman I, Schneider M. Contracting in Eastern and Central Europe. in *Purchasing for Health Gain*, Figueras, J. Jakubowski, E. and R. Robinson eds., Buckingham, Open University Press, 2002.

Edwards N. Planning and policy for emergency services: four fallacies, two problems and some possible solutions. *J Roy Soc Med* 2001; 94 (Suppl. 39): 50-53.

Ensor T. Health System Reform in the former Socialist Countries of Europe. *Int J Health Planning Management* 1993; 8: 169-178.

Ensor, T. and Duran-Moreno, A. Corruption as a challenge to effective regulation in the health sector, in R. Saltman, R. Busse and E. Mossialos (eds) *Regulating Entrepreneurial Behaviour in European Health Care Systems*. Buckingham: Open University Press, 2001.

Ensor T, Langenbrunner J. Allocating resources and paying providers. In: *Health Care in Central Asia* McKee, M., Healy, J. and Falkingham J. eds., Buckingham, Open University Press, 2002.

European Observatory on Health Care Systems. *Health Care Systems in Transition: Malta*. Copenhagen: European Observatory on Health Care Systems, 1999.

Fagerstrom K, Boyle P, Kunze M, Zatonski W. The anti-smoking climate in EU countries and Poland. *Lung Cancer*. 2001; 32: 1-5.

Farmer PE, Kononets AS, Borisov SE, Goldfarb A, Healing T, McKee M. Recrudescence of tuberculosis in the Russian Federation. In: *The global impact of drug resistant tuberculosis*. Farmer PE, Reichman LB, Iseman MD, eds. Boston MA: Harvard Medical School/ Open Society Institute, 1999.

Field MG. The Soviet legacy: The past as prologue. In: McKee M, Healy J, Falkingham J (eds). *Health care in Central Asia*. Buckingham: Open University Press, 2002.

Figueras J, Jakubowski E, Robinson R. *Purchasing for Health Gain in Europe*. draft concept note. London: European Observatory on Health Care Systems, February 2001

Fonseca I. *Bury me standing: the gypsies and their journey*. London: Chatto and Windus, 1995.

Gilmore A, Zatonski W. Free trade v. the protection of health: how will EU accession influence tobacco control in Poland. *EuroHealth* 2002; 8 (4); 31-33.

Gorbachev M. *Memoirs*. London: Doubleday, 1996.

Grindle M, Hildebrand M. Building sustainable capacity in the public sector: what can be done? *Public Administration Development* 1995; 15: 441-463.

Hajioff S, McKee M. The health of the Roma people: a review of the published literature. *J Epidemiol Community Health* 2000; 54: 864-9

Healy J, McKee M. Implementing hospital reform in central and eastern Europe. *Health Policy* 2002; 61: 1-19.

Hensher M, Edwards N. The hospital and the external environment: experience in the United Kingdom. In: McKee, M. & Healy, J., ed. *Hospitals in a changing Europe*.

Hurt RD. Smoking in Russia: what do Stalin and Western tobacco companies have in common? *Mayo Clin Proc* 1995; 70: 1007-11.

Jedrychowski W, Tobiasz-Adamczyk B, Olma A, Gradzikiewicz P. Survival rates among Seventh day Adventists compared with the general population in Poland. *Scand J Soc Med* 1985; 13: 49-52.

Jenkins R, Tomov T, Puras D, Nanishvili G, Kornetov N, Sherardze M, Sugurladze S, Rutz W (2001) Mental health reform in Eastern Europe. *Eurohealth* 2001; 7(3).15-21.

Karaskevica J, Tragakes E. *Health Care Systems in Transition : Latvia*. Copenhagen: European Observatory on Health Care Systems, 2001.

Kennedy BP, Kawachi I, Brainerd E. The role of social capital in the Russian mortality crisis. *World Development* 1998; 26: 2029-43.

Kornai J, McHale J. Is post-communist health spending unusual? *Economics in Transition* 2000; 8(2): 369-399

Kostecka M, Zardecka M. The use of physical restraints in Polish psychiatric hospitals in 1989 and 1996. *Psychiatric Services* 1999; 50:1637-8.

Koupilova I, Epstein H, Holcik J, Hajioff S, McKee M Health needs of the Roma population in the Czech and Slovak Republics. *Soc Sci Med* 2001; 53: 1191-204.

Koupilová I, McKee M, Holčík J. Neonatal mortality in the Czech Republic during the transition. *Health Policy* 1998; 46: 43-52.

Kozintez C, Matusa R, Cazacu A. The changing epidemic of pediatric HIV infection in Romania. *Ann Epidemiol* 2000;10:474-5.

Kutzin, J. A descriptive framework for country-level analysis of health care financing arrangements. *Health Policy* 2001; 56: 171-203.

Laks T, Tuomilehto J, Joeste E, Maeots E, Salomaa V, Palomaki P, Pullisaar O, Karu K, Torppa J. Alarmingly high occurrence and case fatality of acute coronary heart disease events in Estonia: results from the Tallinn AMI register 1991-94. *J Intern Med* 1999; 246: 53-60.

Langenbrunner J, Wiley M. Hospital Payment Mechanisms: Theory and Practice in Transition Economies. in *Hospitals in a Changing Europe*, McKee, M. and Healy, J. eds., Buckingham, Open University Press, 2002.

Langiewicz W, Slupczynska-Kossobudzka E. Organization and Financing of Mental Health Care in Poland. *The Journal of Mental Health Policy and Economics* 2000, Vol. 3:77-81.

Leon D, Chenet L, Shkolnikov VM, Zakharov S, Shapiro J, Rakhmanova G, Vassin S, McKee M. Huge variation in Russian mortality rates 1984-1994: artefact, alcohol, or what? *Lancet* 1997; 350: 383-8.

Leviatan U, Cohen J. Gender differences in life expectancy among kibbutz members. *Soc Sci Med* 1985; 21: 545-51.

Levi F, La Vecchia C, Boyle P, Lucchini F, Negri E. Western and eastern European trends in testicular cancer mortality. *Lancet* 2001; 357: 1853-4

Levi F, Lucchini F, Negri E, Franceschi S, la Vecchia C. Cervical cancer mortality in young women in Europe: patterns and trends. *Eur J Cancer* 2000; 36: 2266-71.

Lewis M. Who is paying for health care in Eastern Europe and Central Asia? Washington: International Bank for Reconstruction and Development/ The World Bank, 2000.

Lewis M. Informal health payments in central and eastern Europe and the former Soviet Union: issues, trends and policy implications. In *Funding health care: options for Europe*. Mossialos, E., et al., eds. Buckingham, Open University Press, 2002.

Lewis, M, Langenbrunner J, Rose L, Shahriari H. *Informal Payments in Health Care in the ECA Region*. Washington DC: World Bank, 2000

MacLehose L, McKee M. Survey of communicable disease surveillance centres in candidate countries. 2002. Unpublished.

Markina SS, Maksimova NM, Vitek CR, Bogatyreva EY, Monisov AA. Diphtheria in the Russian Federation in the 1990s. *J Infect Dis* 2000; 181 Suppl 1:S27-34.

Mackenbach JP, Looman CWN, Kunst AE, Habbema JDF, van der Maas PJ. Post-1950 mortality trends and medical care: gains in life expectancy due to declines in mortality from conditions amenable to medical intervention in The Netherlands. *Soc Sci Med* 1988;27:889-94.

McKee M. The health of gypsies. Lack of understanding exemplifies wider disregard of the health of minorities in Europe. *BMJ* 1997; 315: 1172-3.

McKee M, Bobak M, Rose R, Shkolnikov V, Chenet L, Leon D. Patterns of smoking in Russia. *Tobacco Control* 1998; 7: 22-26.

McKee M, Bojan F, Normand C, on behalf of the TEMPUS consortium for a new public health in Hungary. A new programme for public health training in Hungary. *Eur J Publ Health* 1993; 3: 58-63.

McKee M, Bojan F. In: Figueras J, Saltman R, Sakallerides C (eds) *Reforming public health services Critical challenges for health care reform*. Open University Press. 1998. Pp 135-154.

McKee M, Bojan F, White M, Ostbye T. Development of public health training in Hungary - an exercise in international co-operation. *J Publ Health Med* 1995; 17: 438-444.

McKee M, Britton A. The positive relationship between alcohol and heart disease in eastern Europe: potential physiological mechanisms. *J Roy Soc Med* 1998; 91: 402-7.

McKee M, Healy J (eds). *Hospitals in a changing Europe*. Buckingham: Open University Press, 2002.

McKee M, MacLehose L. Enlarging the European Union: Implications for communicable disease control. *Eurohealth* 2000/2001; 6 (5): 6-8.

McKee M, Shkolnikov V. Understanding the toll of premature death among men in eastern Europe. *BMJ* 2001; 323: 1051-5.

McKee M, Shkolnikov V, Leon DA. Alcohol is implicated in the fluctuations in cardiovascular disease in Russia since the 1980s. *Ann Epidemiol* 2001; 11: 1-6.

McKee M, Zwi A, Koupilová I, Sethi D, Leon D. Health policy-making in central and eastern Europe: lessons from the inaction on injuries? *Health Policy Planning* 2000; 15: 263-269.

McMenamin, Timonen. Poland's Health Reform: Politics, Markets and Informal Payments. *J Social Pol* 2002: 31: 103-118.

Mills A, Bennett S. Lessons on Sustainability from Middle to Lower Income Countries" in *Funding health care: options for Europe* Mossialos, E., et al., eds., Buckingham: Open University Press, 2002.

Mills A, Bennett S, Russell S. *The Challenge of Health Sector Reform: What Must Governments Do?* Hampshire: Palgrave: 2001.

Mossialos E, Dixon A, Figueras J, Kutzin J. *Funding health care: options for Europe*. Buckingham, Open University Press, 2002.

Nicholas S. Movement of health professionals: Trends and enlargement. *EuroHealth* 2002; 8 (4), 11-12.

- Nolte E, Scholz R, Shkolnikov V, McKee M. The contribution of medical care to changing life expectancy in Germany and Poland. *Soc Sci Med* 2002; 55: 15-31
- Orosz E, Hollo I. Hospital Sector in Hungary—The Story of Unsuccessful Reforms, Case Study, London: European Observatory on Health Care Systems, 1999.
- Osterberg E. Is EU accession always healthy? Implications of EU accession for alcohol policy in Finland. *EuroHealth* 2002; 8 (4); 29-30.
- Paci P. Gender and Equity in the ECA Region. Washington DC: World Bank, 2002 (unpublished report)
- Pavlova M, Groot W, et al. Appraising the Financial Reform in Bulgarian Public Health Care Sector: the Health Insurance Act of 1998. *Health Policy* 2000; 53: 185-199.
- Perova NV, Oganov RG, Williams DH, Irving SH, Abernathy JR, Deev AD, Shestov DB, Zhukovsky GS, Davis CE, Tyroler HA. Association of high-density-lipoprotein cholesterol with mortality and other risk factors for major chronic noncommunicable diseases in samples of US and Russian men. *Ann-Epidemiol.* 1995; 5: 179-85.
- Platt L, McKee M. Observations of the management of sexually transmitted diseases in the Russian Federation: a challenge of confidentiality. *Int J STD AIDS* 2000; 11: 563-67.
- Pomerleau J, McKee M, Robertson A, Kadziauskiene K, Abaravicius A, Vaask S, Pudule I, Grinberga D. Macronutrient and food intake in the Baltic republics. *Eur J Clin Nutr* 2001; 55: 200-7.
- Preker, A., et al. Health Financing Reforms In central and eastern Europe and the former Soviet Union. in *Funding health care: options for Europe* Mossialos, E., et al., eds., Buckingham, Open University Press, 2002.
- Preker A, Biaza C, Jakab M, Langenbrunner J. Resource Allocation and Purchasing, with an Emphasis on the Poor and Excluded Populations, Concept Note. Washington DC: World Bank, 2000.
- Preker A, Harding A. *Innovations in Hospital Organization and Delivery,* World Bank: Washington DC, 2001.
- Pudule I, Grinberga D, Kadziauskiene K, Abaravicius A, Vaask S, Robertson A, McKee M. Patterns of smoking in the Baltic Republics. *J Epidemiol Comm Health* 1999; 53: 277-83.
- Randolph SE. The shifting landscape of tick-borne zoonoses: tick-borne encephalitis and Lyme borreliosis in Europe. *Philos Trans R Soc Lond B Biol Sci.* 2001; 356: 1045-56.
- Rico A, Saltman R. Un mayor protagonismo para la atención primaria? Reformas organizativas de la atención primaria de salud en Europa. *Revista de Administracion Sanitaria* 2002, 21: 39-67.
- Roberts H. Mental health care still poor in Eastern Europe. *Lancet* 2002; 360:
- Rosenmuller M. Health and support for the EU accession: PHARE and other initiatives. *EuroHealth* 2002; 8 (4); 36-38.

- Rosenmuller M. EuroHealth 2002; 8 (4), Special Issue Autumn 2002 (in press)
- Schneider, F. The size and development of the shadow economies of the 22 Transition and 21 OECD countries. Bonn: IZA, 2002
- Shah A. The state of mental health economics in the countries of Central and Eastern Europe and Central Asia. Eurohealth 2000; 6(2)::61-62
- Shahriari, H., P. Belli, et al. Institutional Issues in informal Health Payments in Poland: report in the qualitative part of the study. Washington DC: World Bank: 2001.
- Shakhov YA, Oram JF, Perova NV, Alexandri AL, Kolpakova GV, Marcovina S, Oganov RG, Bierman EL. Comparative study of the activity and composition of HDL3 in Russian and American men. Arterioscler Thromb 1993; 13: 1770-8.
- Shkolnikov VM, Leon D, Adamets S, Andreev E, Deev A. Educational level and adult mortality in Russia: an analysis of routine data 1979 to 1994. Soc Sci Med 1998; 47: 357-69.
- Shkolnikov V, McKee M, Leon D, Chenet L. Why is the death rate from lung cancer falling in the Russian Federation? Eur J Epidemiol 1999; 15: 203-6.
- Shum C, Humphreys A, Wheeler D, Cochrane MA, Skoda S, Clement S. Nurse management of patients with minor illnesses in general practice: multicentre, randomised controlled trial. BMJ 2000; 320: 1038-43.
- Stern V. Sentenced to die. the problem of TB in prisons in Eastern Europe and central Asia. London : International Centre for Prison Studies, Kings College London, 1999
- Stoilova Y, Popivanova N. Epidemiologic studies of leptospiroses in the Plovdiv region of Bulgaria. Folia Med (Plovdiv). 1999;41(4):73-9.
- Tomov T. Mental health reforms in Eastern Europe. Acta Psychiatrica Scandinavica 2001;104: 21-26.
- Tomov T. The politics of mental health in Bulgaria: is there a civic role for psychiatry? Paper delivered to symposium on The Role of the Professional Psychiatric Associations, 25 August, 1996. Madrid, Spain. <http://human-nature.com/hrj/ttpolitics.html>
- Tringer L. Focus on psychiatry in Hungary. Br J Psychiatry 1999;174:81-5.
- UNICEF. A league table of child deaths by injury in rich nations. Innocenti Report Card. Issue No. 2. February 2001. UNICEF
- Van Voren R, Whiteford H. Reform of mental health in Eastern Europe. Eurohealth 2000; 6(2): 63-65.
- Varvasovszky Z, McKee M. An analysis of alcohol policy in Hungary. Who is in charge? Addiction 1998; 93: 1815-27.
- Velkova A, Wolleswinkel-van den Bosch JH, Mackenbach JP. The east-west life expectancy gap: Differences in mortality from conditions amenable to medical intervention. Int J Epidemiol 1997;26:75-84.

Vikhert AM, Tsiplenkova VG, Cherpachenko NM. Alcoholic cardiomyopathy and sudden cardiac death. *Journal of the American College of Cardiology* 1986; 8: 3A-11A.

Virchow R. Phlogose and thrombose in gefasssystem. *Gessammelte Abhandlungen zur Wissenschaftlichen Medecin*. Staatsdruckerie: Frankfurt 1856

Vladescu C, Radulescu S. Improving Primary Health Care: Output-based Contracting in Romania. in *Contracting for Public Services*, Brook, P. and Smith, S. eds., Washington DC: World Bank, 2001.

Waghorn A, McKee M, Thompson J. Surgical outpatients: challenges and responses. *Br J Surgery* 1997; 84: 300-7.

Walberg P, McKee M, Shkolnikov V, Chenet L, Leon DA. Economic change, crime, and mortality crisis in Russia: a regional analysis. *BMJ* 1998; 317: 312-8.

Wanless D. *Securing our future health: taking a long-term view: the Wanless review*. London: UK Treasury, 2002

West SG. Effect of diet on vascular reactivity: an emerging marker for vascular risk. *Curr Atheroscler Rep*. 2001 Nov;3(6):446-55.

White S. *Russia goes dry*. Cambridge, Cambridge University Press, 1996.

Winston FK, Rineer C, Menon R, Baker SP. The carnage wrought by major economic change: ecological study of traffic related mortality and the reunification of Germany. *BMJ* 1999; 318: 1647-1650

World Bank. *Living Standard Assessment in Uzbekistan*. Washington DC: World Bank (draft internal working paper), 2002.

World Health Organization. *Project Atlas, Country Profile: Estonia*. Geneva: Department of Mental Health and Substance Dependence, WHO, 2000. <http://mh-atlas.ic.gc.ca/>

World Health Organization. *Project Atlas, Country Profile: Turkey*. Geneva: Department of Mental Health and Substance Dependence, WHO, 2000. <http://mh-atlas.ic.gc.ca/>

World Health Organization. *The World Health Report 2001. Mental Health: New Understanding, New Hope*. Geneva: WHO, 2001.

Wright-Reid A. Health and safety in the workplace: ensuring fair trade in the enlarged European Union. *EuroHealth* 2002; 8 (4); 22-23.

Zajac M. EU accession: Implications for Poland's health care personnel. *EuroHealth* 2002; 8 (4); 13-14.

Zatonski WA, McMichael AJ, Powles JW. Ecological study of reasons for sharp decline in mortality from ischaemic heart disease in Poland since 1991. *BMJ* 1998;316:1047-1051.

Zatonski W., Smans M., Tyczynski J., Boyle P. et al. *Atlas of Cancer Mortality in Central Europe*. IARC Scientific Publications No. 134 International Agency for Research on Cancer, Lyon, France 1996

Zatonski WA, Willet WC. Can changes in dietary fat account for the decline of coronary heart disease in Poland? *BMJ* (in press)