Facing the challenges of health care financing

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Ten Years of Health Systems Transition in Central and Eastern Europe and Eurasia

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This draft paper is part of a series commissioned by USAID to provide a conceptual framework and overview of the main thematic topics of the USAID conference "Ten Years of Health Systems Transition in Central and Eastern Europe and Eurasia." Following the conference, each team of authors will revise the papers, compiling the final versions in a book by the European Observatory on Health Care Systems, which will be made available to conference participants in early 2003.

Introduction

The financing of health systems was the subject of early and radical reforms in central and eastern Europe (CEE) and the newly independent states of the former Soviet Union (NIS).1 In most countries the intention of the reforms was to shift away from the centralized integrated state model of Semashko to decentralized and contracted 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 it was adapted to the particular context of CEE and NIS.

The shift resulted in changes to the way money was both collected and pooled, and created a new relationship between purchasers and providers of care. Legislative reform was, however, not always matched by concrete change on the ground, and in some cases the objectives set out in policy were not fully or even partially attained. The countries of CEE and NIS face a new and challenging environment, in terms not only of total funding for health care but also of the efficiency of their health care services with the funding available and the development of sufficient government and technical capacity.

The purpose of this paper is to set out a conceptual framework for understanding the financing of health care, to describe and analyse some of the trends in CEE and NIS, to evaluate the experience and to draw some conclusions. The main body of the paper is organized into three sections: revenue collection, the pooling of financial resources and the purchasing of services.

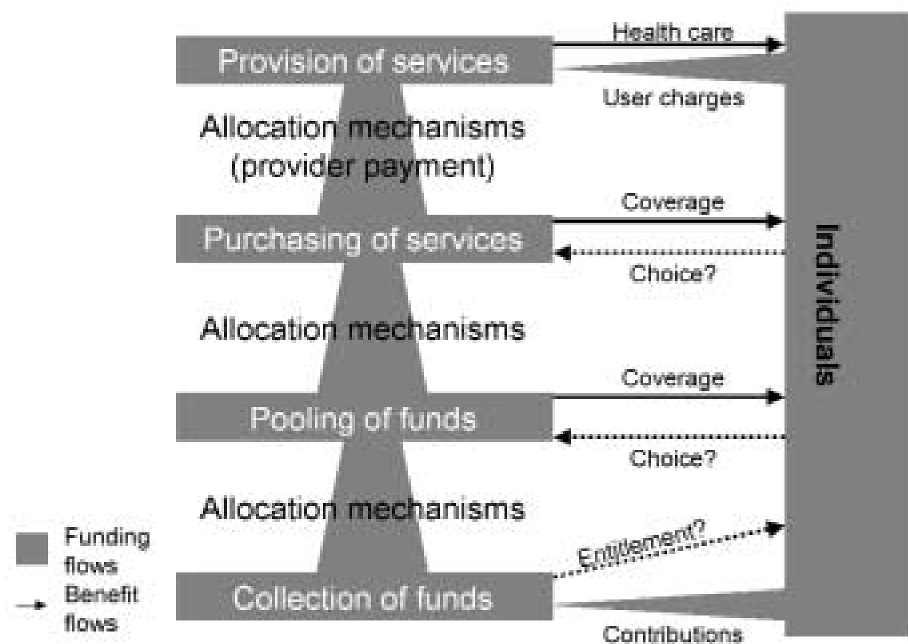
Conceptual framework

Confusion often arises in debates about health care systems because the systems are crudely defined (e.g. Beveridge, Semashko or Bismarck). The assumption is that the source of funds for health care somehow determines the organizational structure. This traditional thinking is being challenged (Kutzin 2001). A number of tools have been developed to facilitate analysis of health care financing in the region. One of these identifies distinct functions within the health care system: revenue collection, pooling, purchasing and provision (Fig. 1). Revenue collection refers to the process of mobilizing resources, usually from households or corporate entities but also from external donors. Pooling refers to the spreading of financial risk across the population or a subgroup of the population through the accumulation of prepaid health care revenues. This facilitates solidarity, primarily between the healthy and the 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. The provision of services, and how these are delivered and by whom, is not within the scope of this paper.

1 The "region" referred to in this analysis covers the countries of central and eastern Europe and the former Soviet Union. Different terms are used to refer to these countries. This paper adopts the WHO terminology of CEE and NIS.

For each of these functions it is possible to identify related policy issues. These are outlined in Table 1. 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 on the distribution of the contributions. Equity of access will depend on who has access and to what services, as well as on 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 decentralization 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, while collection of the contributions might be the responsibility of regional branches of the health insurance fund.

Fig. 1. Functions of health system financing and population links



Source: Kutzin 2001.

Table 1. Policy issues related to different financing functions

Financing function	Related policy issue
Collection of funds	• How much money to collect and from whom? • Who and what to cover?
Pooling of funds	• How to pool resources? • How to allocate resources to purchasers?
Purchasing of services	• From whom to buy and how to buy? • At what price to buy and how to pay?

Source: Adapted from Preker et al. 2000.

Theoretical issues

Before describing and analysing the systems of health care financing that have been introduced in CEE and NIS, we present a short synopsis of the theoretical debate on the advantages and disadvantages of different funding methods. The extent to which practice reflects these theoretical advantages and disadvantages will depend largely on the country context (politics, economy, culture, history and technical capacity).

The main sources of revenue for health care are taxes, social insurance contributions, voluntary insurance premiums 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 and NIS countries, the term "social insurance" is often used to describe payroll taxes that are in fact levied by government and managed by a fund that government largely controls. Nevertheless, 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. those levied on individuals, households or firms) are usually set progressively — the higher the income the higher the proportion paid. In contrast, indirect taxes (i.e. those 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 in proportion 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 organization of social insurance, expenditure control might be strong if there is a single fund or 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. In theory, both social insurance and taxation 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 et al. 2002). These issues are summarized in Table 2. Some of the advantages and disadvantages will depend on the perspective taken and the objectives that are being pursued.

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 decentralization or multiple collection agents, pooling may occur at national level if mechanisms exist to redistribute through a central pool. For example, if regional taxes are levied and retained by local government, pooling operates only 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 among the employees of a company or, if it is community-rated, among the residents of a particular area. Usually, however, voluntary health insurance is initially individually risk-rated (and may subsequently be experience-rated) and therefore pooling among subscribers is extremely limited. If user charges are retained by the providers who collect them there is little pooling of funds, but revenues from user charges may by pooled with other revenues to provide services for a specific population.

Table 2. Summary of the theoretical advantages and disadvantages of different methods of revenue collection

Method of revenue collection	**Advantages**	**Disadvantages**
Direct taxation	Wide revenue base (all income) Administratively simple Usually progressive and promotes solidarity Large risk pool Allows trade-offs with other areas of the public sector Universal coverage	Compliance may be difficult Allocations subject to political negotiation Potential tax distortions
Indirect taxation	Visible source of revenue (all transactions) Administratively simple Compliance easy	Potential tax distortions Allocations rely on consumption levels Usually regressive
Social health insurance	Earmarked for health Separate from other government revenues (May) link contribution to benefit Low resistance to increases Independent management of funds May allow choice of insurer	Compliance difficult Increases costs of labour and may reduce international competitiveness Revenue follows economic cycle Strong regulatory framework Narrow revenue base (only applies to earned income)
Voluntary health insurance	May allow choice of insurer May relate payment to utilization	Strong regulatory framework needed Adverse selection (results in escalating premiums) Risk selection (leaves some uninsured) Access related to insurance cover Usually regressive
User charges	Relates payment to utilization	May deter access to necessary services Access related to ability to pay Regressive Limited pooling of funds

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 towards 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 rationale for this "purchaser-provider split" model (Figueras et al. 2001) has been:

— to improve services by linking plans and priorities to resource allocation, such as to shift resources to more cost-effective interventions and across care boundaries, for example 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);

— to better meet population health needs and consumer expectations by building them into purchasing decisions;

— to improve the performance of providers by giving purchasers policy levers, such as con tracting or financial incentives or monitoring tools, that can be used to increase provider responsiveness and efficiency;

— to 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; and

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

In several European countries, the shift to contracting has been accompanied by 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 and NIS over the past ten years, describing what has happened and offering some analysis of the implementation process.

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. As 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) (Preker et al. 2002). There were a number of reasons why many of the CEE and NIS countries shifted to social health insurance:

— to break the monopoly of government over the ownership and financing of health services;

— to increase the responsibility of individuals for their own health and the financing of health care;

— to improve efficiency by making health care providers more accountable for the use of resources (Chinitz et al. 1998); and

— to give responsibility for health care to organizations independent of government (this was mainly the result of ideological concerns about the role of the state).

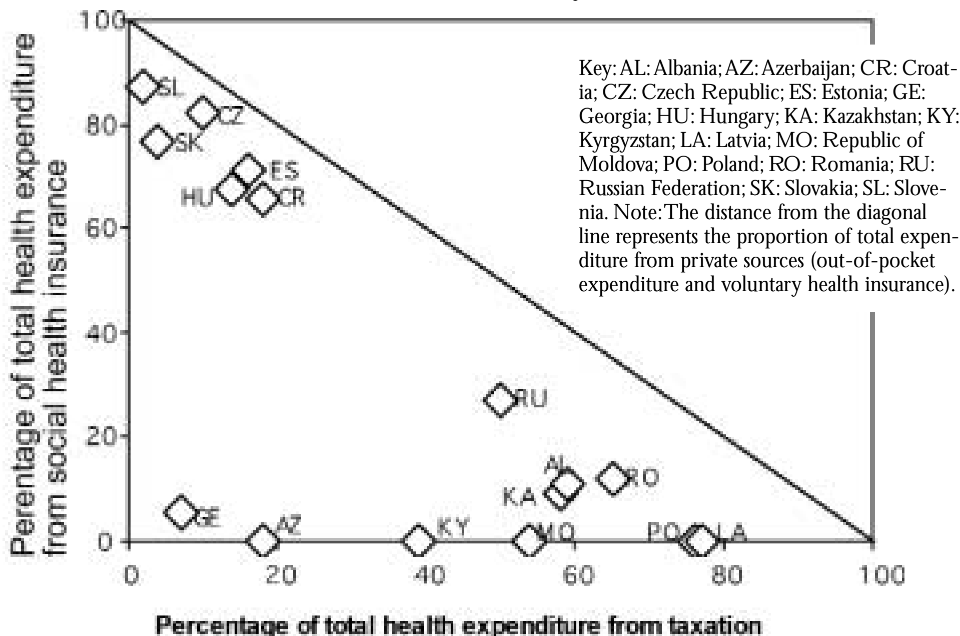
Despite the switch to social insurance contributions, general tax revenues continued to play a significant role in health care funding in many countries. Voluntary health insurance was intended to develop as a supplementary source of revenue. However, the market in private health insurance remains small 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 public health care sector, is much more significant. However, the level and scope of these payments varies significantly between countries (Lewis 2002).

Defining contributions

Total expenditure on health in the region in 1997 ranged from as low as 3.3% of GDP in Albania to 11.3% in the Republic of Moldova. Per capita spending was highest in the Czech Republic, Slovakia and Slovenia and lowest in Albania, Azerbaijan, Georgia and Romania (all less than 100 US $PPP) (Preker et al. 2002). Fig. 2 shows the relative importance of taxation and social health insurance in the countries of CEE and NIS towards the end of the 1990s.2 The distance from the diagonal represents the share of private funding. In the region, there were seven countries that funded health care predominantly from taxation: Albania, Kazakhstan, Latvia, Poland, the Republic of Moldova, Romania and the Russian Federation. Six countries relied predominantly on social insurance contributions: Croatia, the Czech Republic, Estonia, Hungary, Slovakia and Slovenia. In Armenia, Azerbaijan, Georgia and Tajikistan forms of pre-payment almost totally collapsed and health

care was predominantly funded by out-of-pocket payments. In Kyrgyzstan and the Republic of Moldova, out-of-pocket payments accounted for more than 40% of total expenditure on health.

Fig. 2. Percentage of total expenditure on health from taxation, social health insurance and other sources (includes voluntary health insurance and out-of-pocket payments) in selected CEE and NIS countries, 1997 or latest available year



Source: Preker et al. 2002.

2 These data are likely to have changed. For example, since 1998 Poland has had a 7.5% social health insurance contribution.

With the shift to social health insurance in many CEE and NIS 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 3.

Table 3. Contribution rates, employer-employee share and income ceiling in selected CEE and NIS countries

Country	Contribution rate for salaried workers	Employer-employee share
Croatia	18%	100:0
Czech Republic	13.5%	66:33
Estonia	13%	100:0
Georgia	4%	75:25
Hungary	14%	79:21
Kazakhstan	3%	100:0
Kyrgyzstan	2%	100:0
Romania	14%	50:50
Russian Federation	3.6%	100:0
Slovakia	13.7%	73:27
Slovenia	13.25%	50:50

Source: Preker et al. 2002.

Informal payments made by patients and families to supplement formal coverage are common. The estimated frequency of informal payments in the region is typically high (Lewis et al. 2000). The percentage of patients reporting that they had been required to make some payment for a service was 60% in Slovakia, 66% in Tajikistan, 70% in the Republic of Moldova, 74% (of hospital patients) in the Russian Federation, 75% in Kyrgyzstan, 78% (of inpatients) in Poland, 78% in Azerbaijan and 91% in Armenia. Such payments are not high in the Czech Republic, however, where doctors' salaries have increased more than the average rise in wage levels. The level of payments is highest for inpatient care, with drugs and outpatient care subject to lower levels. In relation to household income, out-of-pocket payments for health care can account for as much as 21% of monthly income in Georgia, 9.1% in Albania and 4.1% in Romania. Further survey data are needed to establish more accurately the level and extent of informal payments.

Less well understood or documented are the reasons for the existence and persistence of informal payments. Informal payments take a number of forms and may exist for a number of reasons. They range from the ex post gift to the ex ante cash payment. These payments or gifts may be part of the culture or may be due to the lack of a cash economy, the lack of finances to pay health care workers, the lack of drugs and basic equipment to treat patients, or weak governance. At their worst they may be a form of corruption, undermining official payment systems and reducing access to health services (Ensor & Duran-Moreno 2002; Ensor & Langenbrunner 2002).

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, partly because of the failure of many countries to define a basic benefits package (as described in the next session). There was some demand for private insurance to duplicate

or supplement social health insurance cover, owing to the inadequacy of access. In most countries the experience with private insurance has been problematic. In Kazakhstan in the mid-1990s, several companies selling private health insurance went out of business owing to lack of regulation or oversight of their solvency. In Uzbekistan, government joint stock companies now sell private health insurance and in the Russian Federation, where there are numerous companies, there appears to be little regulation of their operation. Other countries, such as Slovenia, have taken a more cautious approach, limiting the sale of voluntary insurance to the insurance funds (responsible for social insurance). Unfortunately, these are often supplementary policies that include 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, clear boundaries need to be set between the public and private sectors in terms of benefits and beneficiaries, and there needs to be proper regulation of their activities to protect consumers.

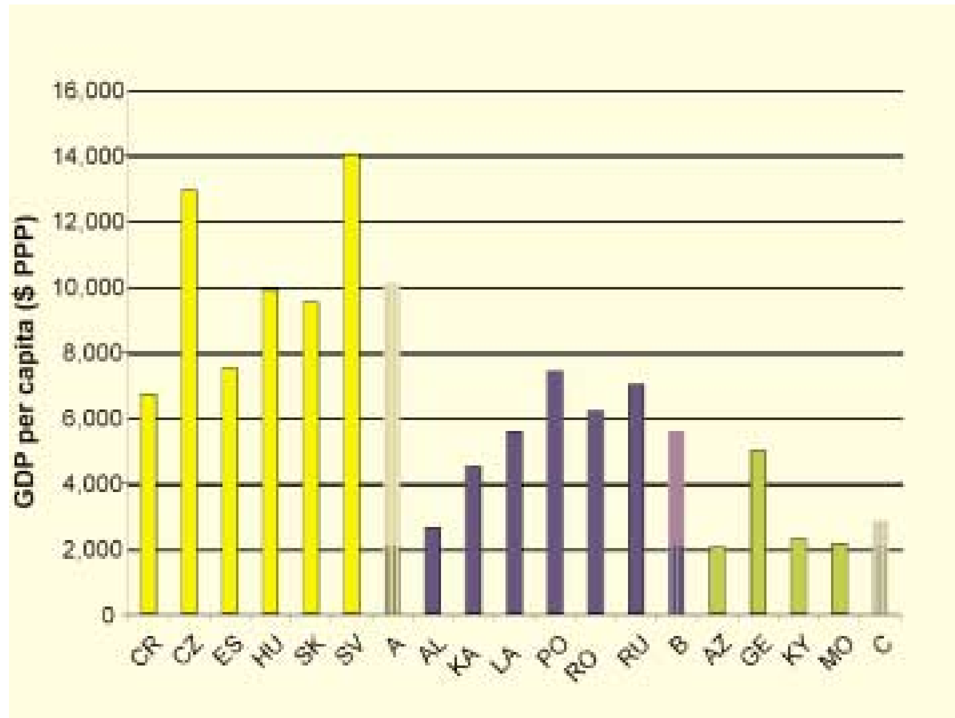
Problems with social health insurance

In practice, health care contributions in most countries are a mix of taxation, social insurance, voluntary insurance and out-of-pocket payments, partly because of the failure of social insurance to generate a significant proportion of health care expenditure. There are a number of reasons for this.

— Weak macroeconomic context. Fig. 3 and 4 show per capita GDP for selected countries from the region and the change in GDP over the period 1990-1997, respectively. They provide the macroeconomic context in the region during the 1990s. The countries have been clustered into three groups — A, B and C. There is a high correlation between those countries with low per capita GDP and negative economic growth (Group C) and a high reliance on out-of-pocket expenditure. Except Poland, all countries in Group B have experienced negative growth. These countries are those that, despite introducing social health insurance, continue to rely on general taxation as the main source of funding for health care. Finally 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 (Group A).

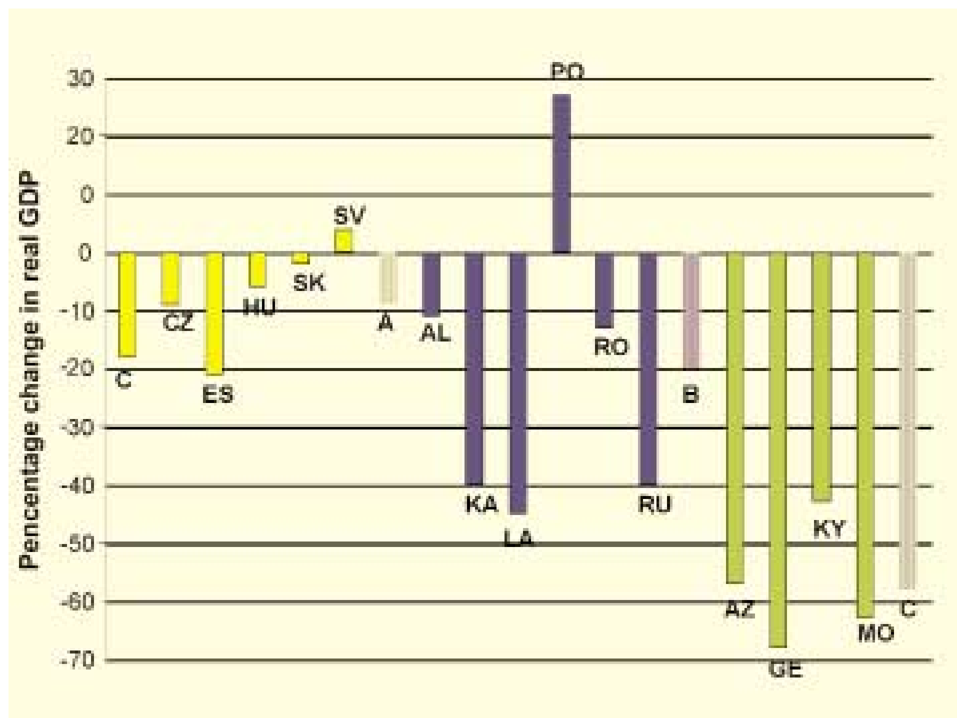
— Labour market features. High levels of unemployment mean that the proportion of the population in formal employment is low, thus creating a very narrow revenue base from which to draw contributions. The numbers of people in formal employment are low and therefore few employers are required to contribute. Many of those in formal

Fig. 3. GDP per capita in selected CEE and NIS countries, 1997



Source: Preker et al. 2002.

Fig. 4. Percentage change in real GDP in selected CEE and NIS countries, 1990-1997



Source: Preker et al. 2002.

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)

— Low compliance. Compliance has been extremely difficult, owing in part 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 may undermine people's acceptance of social insurance if they have to make additional informal payments. Low levels of compliance are further exacerbated ecause there is often no link between contributions and benefits. Many countries retained the constitutional right to health care for all, which was the historical legacy of the socialist era. Thus from the outset, entitlement to health care benefits under social insurance has been universal and unrelated to contribution status. This contrasts with social health insurance in western Europe during the 20th century, which gradually expanded to different population groups as economic development progressed. It is only very recently that Belgium and France have extended the right to health care benefits to all legal residents. Thus in eastern Europe there are reduced incentives to contribute concurrent with large expenditures for the funds.

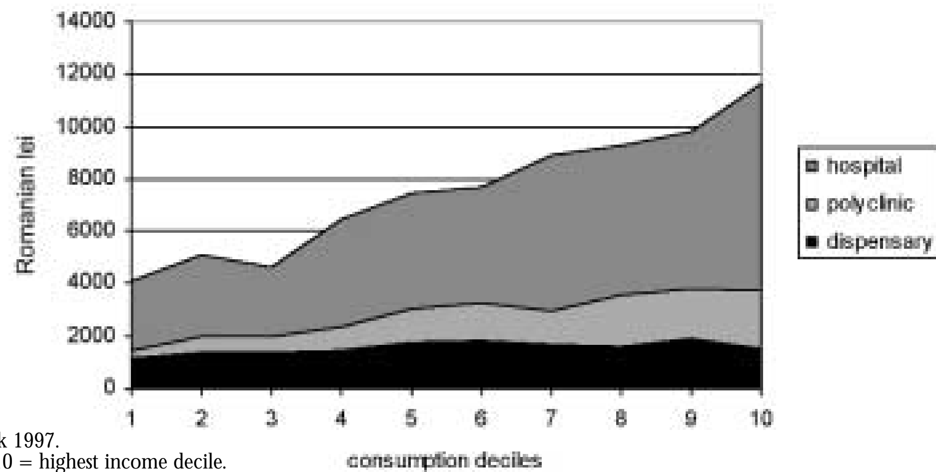
— Lack of transfers to health insurance. Contributions to the health insurance funds on behalf of the non-working population should, in most countries, have been made through transfers from other social insurance funds, such as unemployment and pension funds, or from government revenues. Owing to chronic deficits across the social security system, however, 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. Nevertheless, to match funding to benefits and beneficiaries, policy-makers must also take decisions about who and what to cover.

Defining beneficiaries and benefits

In theory, entitlements to health care benefits have remained universal (100% of the population) in most countries. Anecdotal reports from Kazakhstan and Poland, however, 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." This demands either that contributions are subsidized by other public revenues or that people are asked for out-of-pocket payments at the point of service (Chawla 2000; Langenbrunner et al. 1994).

Fig. 5. Per capita spending on health care by type of facility and income decile, Romania, 1994



Source: World Bank 1997.
Note: 1 = lowest, 10 = highest income decile.

Ethnic minorities make up an important part of the population, whether these be Roma (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 years (Paci 2002).

A few countries have actually rolled back universal coverage to focus on the poor and clinically vulnerable. In Armenia, for example, certain secondary services are available only to the poor.

Historically, most CEE and NIS countries provided comprehensive coverage in theory. In practice services were rationed. Countries in both western Europe and CEE and NIS are attempting to cope with funding the 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.

Many 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. For a while, Georgia developed and implemented a basic benefits package that covered mostly primary care and some secondary care. Armenia has developed a similar package of outpatient services, with secondary care only for the poor. Kyrgyzstan has developed an innovative package that has shifted drug benefits for outpatients to the supplementary benefits provided only to those who are "insured" through contribution to the social fund (Kutzin et al. in press).

In other cases, however, changes in benefits packages were made in a very incremental way or not at all. In most instances, attempts to develop a systematic "basic package" failed. Why did so many countries in the region initiate the process, yet not succeed? Should the lack of success also mean that countries should stop attempts altogether, or are there other, better ways of addressing this issue?

[3] This section draws on some of the discussions found in Duran et al. (in press).

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 individualized curative interventions rather on the wider population interventions and public health initiatives (McKee in press). On the other hand, citizens and politicians see comprehensive and free health care as a right, and are not ready to accept cuts in benefits. Providers, who depend on the income, similarly oppose it (Bultman 2002).

Those who are entitled to benefits because they contribute may be identical to those 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, though this is rare in the CEE and NIS region.

Pooling of Funds

The second important function of health care financing is to pool the resources collected from various sources and to allocate these to purchasers. The two important aspects are the pooling mechanisms and the resource allocation methods.

Pooling mechanisms

A well designed pooling function can be judged by the extent to which multiple revenue streams are integrated or fragmented and the size of the population across which pooling occurs. In smaller countries predominantly funded by social insurance, such as Croatia, Hungary, Slovenia and others, revenue streams are less fragmented (Preker et al. 2002). Problems still persist owing 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.

Decentralization in many countries has included the devolution of revenue collection to regional government or to regional funds (e.g. Bosnia and Herzegovina, Poland, Romania). To ensure adequate pooling between regions, resource allocation methods were designed that aimed to ensure some redistribution according to the health needs of the population covered. However, regional governments, such as those in the Russian Federation,

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 (Taroni 2000). 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, Israel, the Netherlands 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 formulae will generate significant costs and require a certain technical capacity to implement.

Resource allocation

In many CEE and NIS countries the main purchasers of services are insurance funds. In some countries, however, 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 — Kyrgyzstan, Lithuania, Poland, the Republic of Moldova, the Russian Federation and Tajikistan — have developed new geographical allocation formulae based on per capita or “demand-side” principles rather than the older “supply-side” Semashko-driven norms. One premise in 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 nonexistent. 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 (Figueras et al. 2001).

Purchasing of Services

The inherited model in most CEE and NIS 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 compared with more cost-effective primary and outpatient care. Countries in transition found themselves with too many staff, beds and facilities. There was a related perception of underpayment to individual physicians and nurses, regardless of specialty (Ensor 1993; Sheiman 1993).

As early as 1987, the CEE and NIS 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 geographical demonstration areas, re-organized the polyclinics into family practice groups and initiated fundholding arrangements. The objective was to shift the locus of care to less expensive outpatient and primary services. There were early successes, but also unintended consequences, as in St Petersburg where patients who needed hospital care were never admitted owing to underdeveloped quality assurance mechanisms (Sheiman 1993; Langenbrunner et al. 1994; Schieber 1993).

Contracting mechanisms [3]

Concurrent with the shift to social health insurance in CEE and NIS, contracts are increasingly used as a new model of relationships between purchasers and providers. Currently, there is no comprehensive account of contracting or existing evidence on its impact in Europe (Duran et al. in press). CEE and NIS 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 (see, for example, Vladescu & Radulescu 2001).

One disappointment to date has been the lack of selective contracting from among both public and private sector providers, especially in the case of NIS countries. The Russian Federation, for example, enacted legislation in 1993 but its insurance purchasers have never contracted with nongovernmental providers. In other instances, low payment rates have discouraged 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 and NIS countries has been challenging for a number of reasons.

— Inadequacy and low predictability of funding. Since contracts express the clear-cut commitment of a purchaser to reimburse the cost of provided services (contracts in many CEE and NIS countries are regulated by the Civil Code and therefore legally binding), attempts to start contracting require a realistic evaluation of available funding. Experience in Kazakhstan, Kyrgyzstan, the Russian Federation and the Caucuses suggests that, with public funding at 2-4% of GDP, contracting may not be fully viable. Insurers simply cannot pay all providers' bills. Debts increase, payment rates must be adjusted downwards, and providers lose interest in contractual provisions.

· 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, and take financial responsibility for performance. The trend has been to provide facilities with greater rights and responsibilities (Preker & Harding 2001). The Baltic countries have restructured state-owned polyclinics into freestanding practices and independent contractors. In Bulgaria, the Czech Republic, Estonia, Kazakhstan, Latvia

and Lithuania, state-owned hospitals have gained the status of public non-profit organizations, with new contracting rights and responsibilities.

— 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 infomation 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 and NIS.

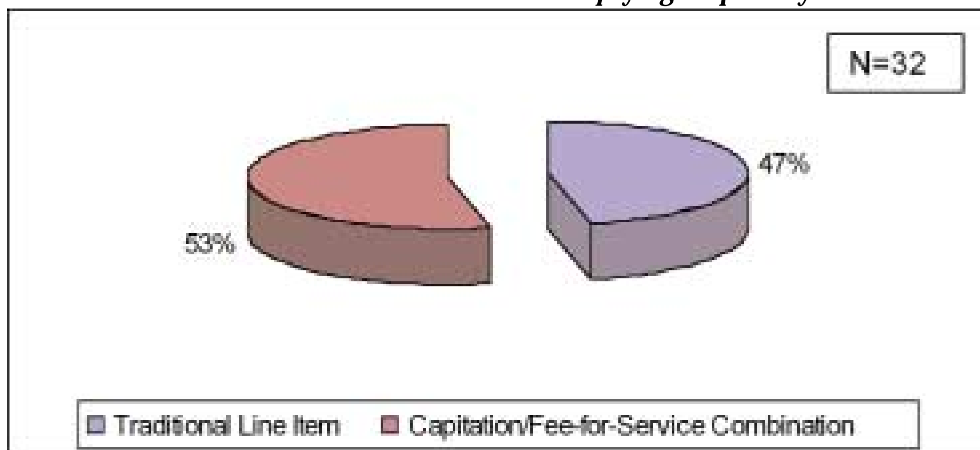
Provider payment

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; that there was limited or no reallocation across categories or from year to year; and that, under difficult economic constraints, salaries, food and medicines took priority.

Health insurance funds and even Ministries of Health now more typically use "performance-based" systems to pay for services. For primary care services, capitation is used more often than not, as seen in Fig. 6. The countries utilizing some variant of this approach include the Baltic countries, Armenia, Croatia, Georgia, Hungary, Kyrgyzstan, Poland, Slovakia, Slovenia and Uzbekistan. Payment can go to the physician directly or to the primary care facility. Some of these models offer the traditional mix of services (e.g. minor surgery) or "carve out" priority services such as immunizations, either using fee-for-service for these (Estonia, Romania) or paying a bonus for rural placement (Georgia, Estonia, Lithuania). This fee-for-service and bonus add-on to the capitation model is important, as some capitation models (e.g. Kazakhstan) have been shown to reduce the utilization of preventive services (Langenbrunner et al. 1994).

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

Fig. 6. Percentages of countries in CEE and NIS with traditional line-item budgets and capitation/ fee-for-service combinations in paying for primary care



Source: European Observatory on Health Care Systems, 1998-2002

ple case-mix measures, and typically include only recurrent costs rather than capital costs or depreciation. Nevertheless, these steps serve as a developmental framework for examining these countries in terms of alternative hospital payment models. A summary of per-diem and per-case systems is provided in Tables 4 and 5.

Table 4. Features across countries of per-diem payment systems for hospital services

Country/design features	Case-mix adjuster	Hospital adjuster	Overall expenditure cap[1]	Other features
Croatia		X	X (1999)	Point system for providers
Slovakia		X		
Slovenia	X (high cost cases)		X	
Latvia	N/A			
Estonia	X		X	Fee-for-service for some procedures

1 This is a budget cap set on all hospital services, not just at the level of the facility.

Source: Langenbrunner & Wiley 2002.

Table 5. Features across countries of per case payment systems for hospital services

Country/ design features	Payment categories	Payment rate basis	Facility adjusters	Outlier payment feature[1]	Overall spending cap
Georgia	30	Historic budget and throughput norms	X		
Hungary	758	Historic costs	X	X	X
Kazakhstan	55	Historic budgets	X		
Kyrgyzstan	154	Historic budgets	X	X	
Lithuania	50	Historic bed-days		X	
Poland	9-29	Estimated payroll tax revenues			
Russian Federation	From 50 to 55 000	Varies	X		

1Additional payments made for statistical outliers (typically 2 standard deviations from the mean), based either on length of stay or on cost per case. In most countries these outliers constitute about 5% of all cases.

Source: Langenbrunner & Wiley 2002.

Providers have responded to these incentives. These per-diem and case-mix systems have driven up the volume of cases admitted and put fiscal pressures on the purchasing organization (e.g. Croatia, Czech Republic, Hungary, Russian Federation). Decreasing numbers of beds and lower average lengths of stay were offset by increasing admissions — a trend that started in the mid-1990s in CEE, and the late 1990s in NIS 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 (Healy & McKee 2002).

A number of CEE and NIS countries 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 exist in five others (Table 6), with capitation pilot schemes in a number of countries such as Hungary, Poland and the Russian Federation (Langenbrunner & Wiley 2002). Some countries (Croatia, Hungary) face fiscal pressures such that they cannot wait for sophisticated risk-adjusted payment cap systems; instead sub-sectors (primary care, outpatient care, hospital care) are being capped at a national level as a first step to stopping the current haemorrhaging of expenditure.

A summary of countries and hospital payment systems is provided in Table 6.

Table 6. Hospital payment systems in NIS and CEE countries

Country	Line item	Per diem	Per case	Global budget
Albania				X
Armenia		X		Developing
Azerbaijan	X			
Bosnia and Herzegovina				Developing
Bulgaria			X	Developing
Croatia		X		Developing
Czech Republic			X	X
Estonia		X	Developing	
Georgia				X
Hungary			X	
Kazakhstan	X		X	
Kyrgyzstan	X		X	
Latvia		X	X	
Lithuania			Developing	
Poland			X	
Romania			X	X
Republic of Moldova	X		X	
Russian Federation		X		X
Slovakia		X	X	?
Slovenia		X		?
Tajikistan				
The former Yugoslav	X			Developing
Republic of Macedonia	X			Developing
Turkmenistan	X		X	
Turkey	X			Developing
Ukraine	X			
Uzbekistan	X			

Source: Langenbrunner et al. in press.

While the number and types of new payment systems in the region show a clear change from the previous decade, results have been mixed to date. This is due to a number of the issues discussed above, as well as other specific issues that await future policy leadership. The latter include the following.

— Fragmented public sector pooling and purchasing. The scope for payment incentives to change behaviour is limited by the 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 and NIS countries, too many actors are allocating funds (insurance, central and local treasuries and health authorities, and sometimes commercial insurers), each trying to control its portion of the money.

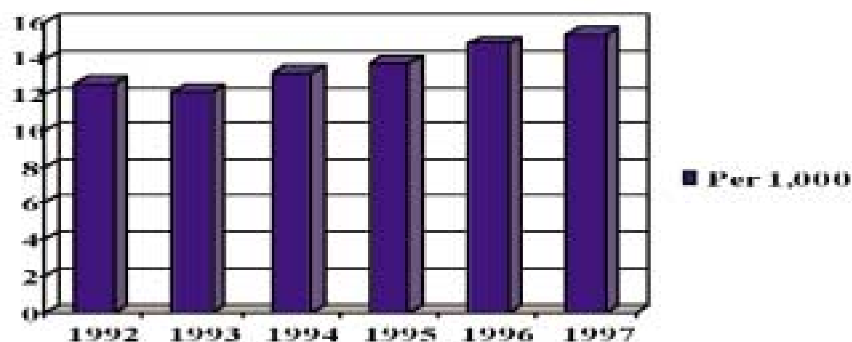
— There are nevertheless successes. In the Baltic countries, the Czech Republic, Hungary, Kyrgyzstan, Slovakia and Slovenia, insurers control most (>70%) of public funds. Purchasing is increasingly integrated, thus facilitating financial planning and planning of medical services delivery (both strategic and operational), with the focus on increased efficiency and predictability of flows of funds. The most recent positive example is Kyrgyzstan, which has started the shift to a single-purchaser model by integrating general budget revenue and mandatory health insurance contributions (Kutzin et al. in press). But in other countries, such as the Russian Federation, numerous health pools exist.

— As discussed above, increasing out-of-pocket payments in many CEE and NIS countries further undermine pooling through public channels. Out-of-pocket payments can further influence treatment choice, as patients tend to make larger payments for riskier interventions such as surgery (Lewis 2000; Orosz & Hollo 1999).

— Poor complementarity of design. Payment reforms across settings often do not complement one another, thus damaging efficiency of allocations. In Croatia, primary care capitation for physicians was "matched" with fee-for-service payments at the specialist referral and inpatient settings. That meant that both primary care physicians and specialists had the incentive to refer up the delivery structure, instead of managing more patients at the primary care level. As a result, the share of inpatient spending (Fig. 7) and hospital admissions increased in Croatia between 1993 and 1997, even as the World Bank loan of nearly US $50 million was targeted to primary care reform.

Similarly, closed sub-budgets (for primary care, specialist outpatient care and inpatient care) now being applied are important tools for cost-containment, but will these generate ad-

Fig. 7. Croatia: increasing hospital admissions during the years of primary care reform



Source: Staines 1999.

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

verse 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 on to the providers, which is both inequitable and inefficient?

— Institutional impediments. New pilot schemes and payment programmes are often blocked by legal or administrative impediments, such as civil service reform. There are, moreover, significant vested interests concerned with preserving the current system, particularly in those areas that could lose from change.

— Deficits. In CEE in the early 1990s, 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 is spent. This mutual debt-settlement system helps to ensure that services can be provided even in cashless 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 of the purchaser are, however, too often underdeveloped. Future directions for purchasers in the region should include providing support to ensure that quality is safeguarded and optimized.

Policy discussion

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

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

Health insurance was expected to eliminate the subordinate role of the socialist health care system and ensure stable, growing resources. Moreover, the autonomy of health insurance funds and performance-related provider payments 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.

In practice, however, revenues generated by social health insurance were limited and governments were often 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 on to 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 utilize 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 owing to:

— the weak macroeconomic context;

— low levels of employment and formal sector activity;

— low compliance and high levels of corruption;

— the lack of transfers to health insurance from taxation or from other social security funds; the failure to define a core benefits package;

— the maintenance of universal entitlement without sufficient funding;

— decentralization and fragmentation of pooling;

— the inadequacy of information, technical capacity and political will to establish needs based resource allocation mechanisms;

— the inadequacy and low predictability of funding;

— the low operational autonomy of providers;

— the lack of information and of technical and management skills for contracting;

— fragmented public sector pooling and purchasing;

— poor complementarity of design of provider payment methods;

— institutional impediments; and

— financial deficits.

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Overall, the reform measures failed to produce the necessary conditions, such as adequate incentives, information and organizational 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.

Economic recovery and capacity-building in the region will go some way towards increasing the revenue collected through payroll taxes. In higher-income countries with higher levels of formal employment (Croatia, 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 Albania, Kazakhstan and 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 to be solved only if corruption in the wider economy is reduced.

Another option is to further diversify funding sources, for example 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 to ensure that funds are not penalized (e.g. by reduced subsidies)4 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 problems of compliance similar to those encountered by 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. those levied on goods and services) are more visible and may be less easily evaded, but they are more regressive.

Experience from low- and middle-income countries outside Europe with, for example, community health insurance suggests that formalizing out-of-pocket payments and establishing systems of pre-payment (or insurance) will be extremely difficult (Mills & Bennett 2002). 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 that 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. If there are seen to be clear benefits, and patients are not also expected to pay informally, willingness to contribute to a formal system of pre-payment should be higher.

The commitment to fund both universal coverage and comprehensive benefits is unrealistic and unsustainable in some countries in the region. Despite political and technical difficulties, countries may need to consider defining more limited entitlements to ensure that public revenues are targeted on the most cost-effective interventions and the most needy

populations. As revenues increase, so too will the benefits and the levels of coverage, thus providing a motivation to the population and employers to comply. For those countries (Azerbaijan, Georgia, Tajikistan) able to spend less than US $15 per person per year on health care from the public purse, one important policy option, at least in the short term, could be to change the coverage rules to benefit the poorest and most needy.

Mechanisms for pooling revenues need to be strengthened. Other sources of public expenditure should be pooled with social health insurance contributions to ensure the most 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 centralized 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 needs to be strengthened, both through the development of information systems, which can deliver both timely and accurate data from providers, and through the training of personnel. Government regulation and stewardship will also be vital in ensuring that purchasers act in the best interests of the population.

Financing systems are only one among many factors needed to cope effectively with the undoubted inefficiency within the health sector, whatever the context. The multifaceted problems faced in the region demand a well conceived and long-term health sector reform strategy, with specific programmes, 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. These are but a few of the challenges that lie ahead for the region in the next 10 years, and perhaps beyond.

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