Bogdan M. Chiritoiu, MA, MSc
Assistant Professor

An evaluation framework for health social insurance. Comparative study on Romania, Hungary and the Czech Republic[1]

The common feature of health reform in Central and Eastern Europe is the introduction of the purchaser / provider separation, through the introduction of health social insurance funds that receive the social contribution of the insurees and buy health services on their behalf. Crucial for the success of the reform is the ability of the health funds to facilitate the restructuring of health providers, instead of simply paying for their costs. This is what later in this paper I called 'active or effective purchaser' as opposed to simple payer.

This paper briefly presents the criteria usually employed in the literature for the evaluation of the performance of the health system. The emphasis is placed upon the micro-efficiency criteria formalised by the Le Grande in the 'quasi-market' theory. Based on these theoretical considerations, I elaborated a set of criteria for evaluating the performance of the health funds as active purchasers. In the second part of the study, I apply this set of criteria for the analysis of the situation in three Central and

[1] This paper is based on the research funded by an International Policy Fellowship from the Open Society Institute, to whom I express the gratitude hereby. I also benefited from the suggestions of Dr. Elias Mossialos, Director of LSE Health, whom I thank too. Those above mentioned bear of course no responsibility for the opinions expressed in this study.

Eastern European countries: Romania, Poland and the Czech Republic, with the aim of identifying the best performing model.

Features of health social insurance in Romania, Hungary and the Czech Republic

There are many similarities in the health reform in CEE countries. All these countries move from the socialist integrated system to the social insurance one. The key element for the success of reforms is the introduction of health funds as third-party payer, with the scope of eliminating most of the market imperfections that characterise the health sector. There are two competing models for the organisation of these health funds. The first, present among others in Romania (but also in and Poland) is of a single fund (either nationally like in Hungary, or regionally like in Poland and Romania). The alternative is to have multiple health funds competing one with another, as is the case in the Czech Republic (and Russia).

The performances of these institutional arrangements are not clear-cut. There is dissatisfaction with competition in Russia, where a change to the monopsonic model is discussed. On the other hand, the Hungarian government aims to move to the Czech (heavily regulated) competition model.

Evaluation criteria

The literature on health policy employs four wide criteria for policy evaluation: macro-efficiency, micro-efficiency, freedom choice and responsiveness to the needs of patients, and finally equity.

- **Macro-efficiency**

What is labelled as macro-efficiency is actually a measure of effort (input): the expenditure on healthcare, measured usually as share of GDP. Unlike the established health systems of Western Europe and US, the challenge facing the CEE countries, and especially the Romanian healthcare is under-funding rather than spending too high a proportion of the national wealth. The health expenditure between 2.8 - 4% of GDP during the transition years, is less than half of what is spend in the developed world (around 9% in Germany - the model of most CEE reforms, or 13% in US). It is also less than in the neighbouring countries of Central and Eastern Europe, but according to the World Bank is consistent with what is to be expected at the current level of economic development of Romania (Chellaraj, 1996). However, behind the introduction of social insurance, in anything but name a hypothecated health tax, was the idea of solving the perceived under-funding of the sector.

The second (and opposite) macro-efficiency risk is that the incentives for individual practitioners or patients will result in an over-shooting of health expenditure. This was the case in the Czech Republic in the early 1990s, but is less likely in Romania and Hungary. Unlike in the Czech reforms, there is no competitive insurance to start with. More important, capitation payment for GPs and fixed budgets (Romania)[2] / DRG (Hungary) for hospitals are adequate tools for controlling expenditure. In addition, the disincentive for GPs to have a very large number of patients reduces the competition, and therefore the risk of over-referrals, as a mean for 'pleasing' patients. The only problem here however are the soft budgetary constrains in the health sector, with

[2] Starting 2002, Romania will also introduce the DRG system for hospital funding.

hospitals especially accumulating large debts with impunity. This is a micro-level deficiency, but with possible macro-economic repercussions.

- **Micro-efficiency**

The same tools that are useful for reducing the macro-efficiency risk, by reducing competition, might reduce micro-efficiency in the same time. Le Grand in Robinson (1994) developed the conditions that would allow public sector quasi-markets to approximate the efficiency of competitive markets. These conditions refer to: market structure, information, transaction costs and uncertainty, motivation and cream-skimming.

market structure – ideally the market structure should approximate the perfect competition model: a large number of suppliers and consumers, none large enough to move the market, that can enter and exit the market easily. Should these conditions be impossible to meet, and a single player exists on either the offer (monopsony) or the demand side (monopoly), it could be balanced by the creation of a countervening single player on the opposite side.

Information – asymmetry of information is widespread in the health market, due both to it being an insurance market, and to the rather technical nature of medical knowledge. Therefore adequate information should be produced and distributed, and the institutional framework should minimise the incentives for adverse selection.

transaction costs and uncertainty – transaction costs should also be minimised, both by reducing uncertainty and designing an appropriate institutional structure

motivation – the payment system should reward a good performance of the providers

cream-skimming – is a case of *adverse selection* by which the insurer selects only the good risks in the population and does not insure the really needy (in health terms).

- **Choice and responsiveness**

This criterion includes the freedom of choice of the patient both of type of service desired and of the provider.

- **Equity**

Notwithstanding the reservations concerning the use of such a value-loaded concept like equity, I shall use, following majoritarian trend in literature, the more generous definition of equity as *equal care for equal need* (i.e. without concern for the ability to pay).

Effective Purchaser Features

Taking into account the evaluation criteria described above, I have identified the features of a health fund that are conducive to a good performance of the healthcare system according to these criteria.

i. Can the health funds select the providers?

This is the key for introducing competition between providers, and ultimately for satisfying the 'exit' possibility required by Le Grand's quasi market model.

ii. What are the methods of reimbursing the providers? Are these conducive to efficiency?

Perverse incentives in the payment formula have caused the explosion of health costs in the early 1990s in the Czech Republic.

iii. How developed is the information data base?

The absence of cost information is one of the most serious obstacles for an efficient use of resources in the health system.

iv. Who is in charge of long term planning (e.g. capital investments)? Does the reimbursement of providers cover the operation costs only, or does it incorporate depreciation too?

The divorce between investment decisions and funding of recurrent costs is a source of inefficiency – from an economic perspective total costs (recurrent and depreciation) should be taken into consideration when deciding the cost-effectiveness of alternative treatments.

v. Who manages the public health measures? Are the health funds in any way involved?

Again, as long as preventing a disease is cheaper than treating it, it makes economic sense to put one body (i.e. the health fund) in charge with all the costs, therefore including preventive care.

vi. How high a proportion of total costs is represented by the administrative costs?

The downside of competition, gathering the information data base, cost analysis and so on, is the increase in administrative costs, what might offset any gains from increased operation efficiency.

vii. Is the portability of benefits assured when one changes the health fund?

Another downside of multiple health funds could be the fragmentation of the health market, what would create dependency and also impede the mobility of labour.

viii. Are there great variations in the quality of health care between health funds? What about the width of the package of benefits?

While these features can play a role in the competition between insurers, they also increase the information costs for patients, leading to market failures.

ix. Is the access to health care impeded in any way? How widespread is adverse selection?

Adverse selection / cream-skimming are the major sources of market failure in health insurance.

Are Czech, Hungarian or Romanian Health Funds Effective Purchasers?

For each of these features, I shall look now briefly at the performance in the three countries studied.

1. **Provider selection**

While theoretically possible, in all three countries there is practically no selection of the providers. This is especially surprising in the Czech Republic, because the

competition could be expected to force the health funds to be discriminative about the providers they contract.

2. Payment method

As hinted elsewhere in the paper, the choice of the reimbursement method has created problems in the Czech Republic. At the start of reforms in the early 1990s, providers were reimbursed by the health funds essentially on a fee for service basis. This reimbursement method contributed to a huge increase in medical intervention and an escalation of health expenditure.

Currently, all three countries use a payment system more conducive to cost-containment. General Practitioners (GPs) are paid mainly by capitation (i.e. according to the number of patients). For hospitals, Hungary uses reimbursement based on diagnostic groups (DRG), and this method is being introduced in the Czech Republic and Romania too. A word of caution however: DRG is indeed a very good management tool, and can greatly enhance operational efficiency, but is not in itself a cost-containment instrument. Other methods have to be coupled with it in order to keep the hospital expenditure under control. Finally, cost-containment measures are employed in the drug sector too, with Romania and the Czech Republic making use of different variants of the reference price system (i.e. price based on the class of drug).

It is worth mentioning however that the method of payment is imposed by law in all these three countries, and is therefore not directly connected to the ability of the health funds to develop an efficient way of reimbursing the providers. The

expectation that the competition pressure would force the Czech health funds to develop a more efficient payment system has not been confirmed.

3. Information data base

There is a good data base on health costs in Hungary and in the Czech Republic. For the former is the by-product of employing the DRG system, and for the former is the fortunate inheritance from the fee-for-service reimbursement method. Again, these results are not directly connected to the activity of the health funds.

4. Long term planning

In all three countries, the health funds are covering (part of the) operational costs. Capital investment decisions rests with the government.

5. Public health measures

Similarly, public health measures are in the hands of governmental public health authorities, and are not integrated in the health funds. In Hungary there is an initiative to integrate the activity of the different healthcare stakeholders, by establishing ‘health targets’, but this approach still has to bear fruits.

6. Administrative costs

In all three countries the administrative costs represent a relatively low proportion of the expenditure (about 2%). This result refutes the expectation that the pluralistic Czech system is prone to high administrative expenditure.

7. Portability of benefits

In all three countries there is a mandated package of benefits. The health funds do not offer packages substantially above these minimum requirements, in Hungary and the Czech Republic because being practically monopolies they do not have to, and in the Czech Republic because there are legal restrictions. Therefore there is little variance in the package of services provided, and the question of the portability of benefits is not relevant.

8. Package of services

In all three countries the package of services offered is wide, with only few types of interventions excluded (e.g. cosmetic surgery). There are problems however in paying for these large packages. In Romania, for exemplification, there it is under consideration the introduction of optional private insurance to pay for non-essential interventions (or for large co-payments for these).

9. Access to health care

There are no complaints concerning cream-skimming in any of the three countries. While this is to be expected in monopsonic systems like Romania, and Hungary, it is a surprise for the Czech Republic, because the pluralistic health insurance market is supposed to be prone to adverse selection. Such cases have actually been reported at the start of reforms, but public opinion and health community reactions, together with legislation seem to have kept in check the phenomenon.

In Romania, access problems are encountered, but these have the root in regional inequalities (especially along the urban / rural divide), and may not be directly connected to the structure of the health insurance market.

These results are summarised in the table below.

The Health Fund as an Effective purchaser. Comparison between the Czech Republic, Hungary and Romania.

Feature	Czech Republic	Hungary	Romania
Ability to select the providers	No	No	No
Efficient method of payment	Yes	Yes	Yes
Develop an information base	Yes	Yes	No
Incorporate long term planning	No	No	No
Incorporate public health measures	No	No	No
Low administrative costs	Yes	Yes	Yes
Portability of benefits	Yes	Yes	Yes
Good package of benefits	Yes	Yes	Yes
Good access to healthcare	Yes	Yes	No

Conclusions

In spite of the different paths to reform they have chosen, the three countries analysed here, the Czech Republic, Hungary and Romania, have shown a marked convergence in the way the reformed healthcare system is governed. The more competitive Czech model has grown more similar to the more *dirigiste* Romanian and Hungarian ones. This evolution has resulted from the restrictive regulation introduced by the Czech government, but also from the inability of the health funds to deal with the information problems that mar the health sector. Theoretically a competitive system, Czech social health insurance is in all but name a market with a dominant player, and little competition.

There are of course differences in health status between these three countries, and there are differences in the quality of healthcare. But these differences are explained by factors outside our framework of analysis. The convergence in governance is mirrored by the similarity in performance according to our ‘effective purchaser’ indicators. What little differences there are from this point of view, are not resulting from the institutional structure of social insurance.

Selective Bibliography

Abel-Smith, Brian, *Cost Containment and New Priorities in Health Care. A study of the European Community*, Aldershot: Avebury, 1992

Abel-Smith, Brian, *Introduction to Health: Policy, Planning and Financing*, London and New York: Longman, 1994

Albert A, Bennett C and Bojar M, "Health Care in the Czech Republic: A System in Transition" *Journal of the American Medical Association*, 1992, Vol. 271, No 23.

Australian Health Insurance Commission (AHIC), *Romanian Health Sector Financing Study*, Bucharest, 1998

BASYS, "REPEDE: Health Care Reform", Bucharest, 1997

von Bredow L, "The Reform of Health Care in the Czech Republic", *Eurohealth*, October 1995.

Barr, Nicholas, *The Economics of the Welfare State*, 2nd edition, Oxford et al.: Oxford UP, 1993

Chellaraj G., Adeyi O., Preker A.S. and Goldstein E., *Trends in Health Status, Services and Finance: The Transition in Central and Eastern Europe*, vol. I, World Bank Technical Papers, No. 341, World Bank, 1996

Chellaraj G., Adeyi O., Preker A.S. and Goldstein E., *Trends in Health Status, Services and Finance: The Transition in Central and Eastern Europe*, vol. II, World Bank Technical Papers, No. 348, World Bank, 1997

Cohen, Lillian Clare, *A Review of the Pharmaceutical Sector in Romania*, World Bank, 1996

Cottarelli, Carlo et al, *Hungary: Economic Policies for Sustainable Growth*, Washington DC: IMF, 1998

Dragomiristeanu, Aurora, Dan Enachescu, Cristian Vladescu, eds., *Politici de alocare a resurselor si de planificare a personalului medical in sistemele de sanatate. Romania in contextul international*, Centrul pentru Politici si Servicii de Sanatate, Bucharest, 2001

Ensor, T., “Health system reform in former Socialist countries of Europe”, *International Journal of Health Planning and Management*, vol. 8, 1993, pp. 169 - 187

Figueras J, Saltman R and Mossialos E, "Challenges in Evaluating Health Sector Reform: an Overview", LSE Health Discussion Paper No 8, May 1997.

IBRD, *World Development Indicators 1997*, Washington: IBRD, 1997

Le Grand J and Bartlett W (eds.), *Quasi-Markets and Social Policy*, Macmillan Press, 1993.

Massaro Thomas A, Nemec Jiri and Kalman I, "Health System Reform in the Czech Republic", *Journal of the American Medical Association*, June 15, 1994, Vol. 271, No 23.

McKee M, Bobak M, Kalina K, Bojan F and Enachescu D, "Health Sector Reform in the Czech Republic, Hungary and Romania", *Croatian Medical Journal*, 35(4), 1994.

Mullen, Fiona, "Czech healthcare reforms since 1992: How successful have they been in achieving efficiency, responsiveness, choice and equity?", unpublished paper, LSE, 1998

NERA (National Economic Research Associates) and Pharmaceutical Partners for Better Healthcare, "The Health Care System in the Czech Republic", 1996

NERA, "The Health Care System in Romania", 1998

NERA, "Initial Thoughts on a Pharmaceutical Reimbursement Policy for Romania", London, 1998

OECD, *The Reform of Health Care Systems: A Review of Seventeen OECD Countries*, OECD Policy Studies No 5, 1995.

OECD, *New Directions in Health Care Policy*, OECD Policy studies No 7, 1995.

Oreskovic S, "The Results of the Health Care System Revolution in the former Socialist Countries in Europe", 9th International Conference, International Association of Health Policy, Thessaloniki, September 1995.

Paveliu, Sorin, *Politica Medicamentului*, Bucuresti: Infomedica, 1999

Parker, J. E. S., *The International Diffusion of Pharmaceuticals*, London and Basingstoke: Macmillan, 1984

Preker S. Alexander, and Richard G. A. Feachem, "Health and Health Care" in Barr, Nicholas, ed., *Labor Markets and Social Policy in Central and Eastern Europe*, IBRD, New York et al.: Oxford UP, 1994

Preker AS, Feachem R, *Market Mechanisms and the Health Sector in Central and Eastern Europe*, World Bank Technical Paper No 293, 1995.

Saltman, Richard B. and Josep Figueras, editors, *European Health Care Reform. Analysis of current strategies*, WHO Regional Office for Europe, Copenhagen, 1997

Vladescu, Cristian, *Politica de Reforma a Sistemului de Sanatate din Romania. O analiza critica*, Bucuresti: Infomedica, 1999

Vladescu, Cristian, ed., *Managementul Serviciilor de Sanatate*, Bucharest: Expert, 2000

World Health Organization, *European Health Care Reforms. Analysis of Current Strategies. Summary*, Copenhagen, 1996

World Health Organization European Regional Office, *Health in Europe*, on-line version

Zammit-Lucia J. and Dasgupta R., "Reference Pricing: The European Experience", Health Policy Review Paper 10, Imperial College of Science and St. Mary's Hospital, UK, 1996

*** *Czech Health Statistics Yearbook 1999*, Institute of Health Information and Statistics of the Czech Republic, Prague, 2000

*** *Anuar de Statistica Sanitara 1999*, Ministerul Sanatatii, Centrul de Calcul, Statistica Sanitara si Documentatare Medicala, Bucharest, 2000