



Health Care Reform in Central and Eastern Europe:

Setting the stage for discussion



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Executive Summary

This paper is the first part of a publication series under the banner of our initiative *CEE Ahead: A vision for sustainable healthcare*. CEE Ahead aims to put forward a new vision for healthcare in Central and Eastern Europe (CEE).

The paper examines the transformation and reforms of Central and Eastern European (CEE) health care systems following the collapse of the Soviet Union in the early 1990s. Taking the examples of Poland, Hungary, the Czech Republic, Slovenia and Romania it sketches the major success stories but also examines the missed opportunities and major backlashes against these reforms.

Following the collapse of the Soviet Union, CEE countries had to cope with health care systems that were organised along the lines of the "command economy". They provided universal access but suffered from gross inefficiencies and outdated technologies. Patient choice and empowerment was non-existent. Since then, with differing priorities and reform paces, the region has broadly moved towards more open and flexible (Bismarck-style) social insurance systems.

Health care financing has been diversified, away from pure tax funding towards the inclusion of social insurance premiums, user fees and, in some cases, private health insurance. Yet much more needs to be done on this front. CEE societies are experiencing demographic changes at a very high speed, which will put increased strains on their health services.

Access to new health care technologies has been greatly improved, which has finally enabled progress in medical outcomes after decades of stagnation. Nevertheless, CEE countries are still lagging considerably behind Western Europe with regards to the level of innovative treatments and technologies available to patients. With the rising expectations of CEE populations to receive the most advanced and innovative treatments, governments in the region have to find a way to catch up with the rest of Europe. Sustainable pricing and reimbursement systems, that not only focus on cost-containment but that also provide the necessary incentives for the inclusion and supply of innovative treatments, are one way of achieving this.

Coming from a tradition of "guided" health care, in which patients were assigned to providers with little or no choice, principles of "consumerism" have come as an entirely new experience. This has already changed the position of patients within the healthcare system to some benefit. Yet, the free choice of specialists and health insurers, and easy access to information is largely the exception rather than the rule. Much more needs to be done in order to truly empower patients in CEE countries.

One of the areas where perhaps the least progress has been made is in the area of "medical subsidiarity" – in other words, the concept of treating routine cases at a routine level and reserving the highly specialised sectors for the most challenging cases. CEE health systems still waste resources by hospitalising patients that could be treated in ambulatory care, or by referring simple cases to specialists instead of treating them at the GP level. The main reason why these structural imbalances have not been corrected is that CEE health systems have failed to introduce principles of competition to the health sector. Shielding providers from competition and the need for structural change may be politically convenient, since doing the opposite would provoke fierce resistance from well-organised groups. But patients pay a high price for the prevention of modernisation.

CEE health systems are at a crossroads. They can travel further down the road towards patient-centred health systems, in which well-informed health consumers exercise a far greater degree of

choice at all levels. But this would have to include an end to the comfortable illusion of 'free health care' and a shift towards a healthcare system based on more diverse sources of funding and provision, including the use of the private sector. Alternatively, these countries could slip into reverse - "shielding" patients from the exercise of choice and protecting providers from having to change their business models. This would most likely result in high invisible costs, structural inefficiencies, a greater tendency towards rationing and delayed access to innovative treatments, all of which are more likely to cause more harm than good.

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Introduction

Since 1989 Central and Eastern European (CEE) countries have changed beyond recognition. Across the region, economic and social reform has been profound, and policy innovation and experimentation widespread. Since the early 1990s, new policies, including flat taxes, reformed pension systems, school vouchers, and health system reform have all been experimented with in the new EU member states.

Among these reforms one can identify significant activities and policy changes with regard to CEE health care systems. Typically, health care systems tend to display inertia, even when other sectors of society experience dramatic change. Quite understandably, when it comes to the health of the nation, politicians and voters are hesitant about reforms when outcomes are not entirely predictable. The British National Health Service, for example, remained relatively untouched even during Margaret Thatcher's push for privatisation in other key sectors of the economy. The CEE region provides a rare exception to the rule. With its embrace of wide-ranging health care reform we have been presented with a fascinating opportunity to study the various financing and structural models that have been adopted, experimented with and, in some cases, disregarded and reversed.

The aim of this paper is to provide a snapshot of health care reform in the CEE region by comparing and contrasting reform efforts. In doing so, we hope to identify a number of key reform areas that we can eventually go on to explore in greater detail and in a more systematic way. This in turn can help to start a dialogue with different stakeholders about the most effective ways to harness health care system reforms in CEE countries to the benefit of patients and to the public as a whole.

Health care reform in Central and Eastern Europe

At the onset of the transition to democracy and market economics, Central and Eastern European countries had very similar health care systems. Inherited from communist regimes, these were organised in a command and control style (known as the 'Semashko system'). All health care was funded and provided by the state which owned the hospitals, clinics, general practitioner (GP) surgeries, pharmacies and pharmaceutical companies. Of course there were some deviations from this model, such as self-governing medical cooperatives in Poland or church-owned hospitals in Hungary. However, viewed from a distance, CEE health care systems shared similar principles; they were owned by the state, subject to central planning, and managed by similar objectives and methods of operation. Large clinical centres, for example, were given favour over doctor's surgeries.

As was characteristic of the communist economic model, there was a strong emphasis on output quantities such as the number of doctors and hospital beds. For the relatively simple infectious diseases that were prevalent in the post-war era, this top-down mode of organisation proved relatively efficient. In the two post-war decades, key health indicators improved on both sides of the iron curtain.

However, from the mid-1960s onwards, Eastern and Western Europe went separate ways. CEE health systems stagnated in terms of productivity and medical innovation, and so did the health outcomes they

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produced.¹ The rigid, hierarchical Semashko system proved unable to adequately cope with more complex diseases that require more individualised forms of care, such as cancers, cardiovascular and circulatory diseases. The communist model, which once boasted of providing both high-quality health care and equal access, ended up offering neither to its citizens. Inefficient use of resources led to waiting lists, 'informal payments' and medical black markets. Even within the official system, privileges remained. There were several parallel, sector-specific health systems, for example, for the military, and these were often better equipped but closed to the general public. When the Semashko system ended after 1991, there were few who mourned its passing.

Since then, CEE countries have taken differing approaches to health care reform. While Slovakia has moved to a system with several insurers, Romania has retained a single national health insurance. While Slovenia has diversified funding and included private insurance and patient co-payments, the Czech Republic has retained a largely state-funded system. While the Czech Republic has diversified the provider side and included the independent sector in activities like the running of hospitals, in Hungary the state remains by far the main provider. Furthermore, while Poland has adopted a 'medical federalism' and delegated some responsibilities to regional levels, Hungary has left them largely with the central government.

However, some similarities between CEE health systems remain:

- Medical institutions like clinics and hospitals are still largely shielded from the need to downsize, implement modern management techniques, and improve operational sequences. Instead, inherited structures are conserved through measures like subsidies, solvency guarantees and bail-outs.
- The provider side is still strongly concentrated, with a large emphasis on clinical centres and a relative neglect of GP surgeries and other ways of providing routine treatment for simpler cases.
- On average, CEE countries display more doctors' consultations, hospital beds, and hospitalisation days per citizen than Western countries.
- Health insurance institutions, with budgets independent of the government's budget, have been created. This is thought to be a more transparent and stable way of financing health care, since it protects health care funds from political pressures. But, no country has gone the whole way to an insurance-based system. Parts of health care financing still come from general taxation, not from independent funds. Recently, the share of tax funding has even grown again, as a proportion of total health care funding.
- There is still a shortage of data on medical outcomes at the clinical level. Such data is needed to properly evaluate provider performance.²

CEE countries cannot easily be grouped into 'reformers' and 'conservers'. Many of them have mixed records, with a strong reform effort in one area of health care and inertia in others. Neither are there obvious reform 'success stories' and 'failures'. Some CEE countries have experienced strong economic growth and have achieved better health outcomes accordingly - not necessarily because their health system is good, but simply because more money is available for health care. At the same

¹ Golinowska & Sowa (2007) p. 36-42

² Figueras et al (2004) p. 16-21; 30

time, if a poor economy does not provide the means for high quality medicine, even the best health reform cannot fully fill this gap.

As discussed, reform records have been mixed. This paper will provide an overview of five countries - Poland, Hungary, the Czech Republic, Slovenia and Romania. These have been chosen either as cases that are especially representative of CEE health systems' specific strengths and weaknesses, or because they represent polar cases of a particular reform trajectory.

Despite the diversity found amongst these countries we can draw out a number of health care 'themes' that have underpinned reform efforts. These include the search for a sustainable financing model, attempts to widen access to medicines, restructuring the role and relationship of different actors in the health system, empowering patients, and establishing competition between service providers. All these elements have featured in some way or another in reform discourse.

Table 1: Key input figures of health care systems³

	Health Expenditure (% of GDP)	Government share (% of total health expenditure)	Composition of private spending (Out-of-pocket to voluntary insurance)	Composition of public spending (social insurance to tax funding)
Czech Republic	7.1	89	98 : 02	90 : 10
Hungary	7.8	71	96 : 04	90 : 10
Poland	6.2	69	98 : 02	84 : 16
Romania	5.5	70	86 : 14	82 : 18
Slovenia	8.5	72	53 : 47	93 : 07

Financial sustainability

There is little need to explain the crucial importance of financial sustainability. A health system which promises services it cannot afford may get away for a while with debt and one-off measures. But eventually the shortages will be revealed, whether through a lack of qualified personnel, the closing down of institutions, or an outright withdrawal of services.

High health care costs are not in themselves a bad thing, nor does rising expenditure automatically indicate a lack of sustainability. It is not surprising that health expenditure in CEE countries has experienced substantial growth since 1991. Health care is a good example of what economists call a 'luxury good' – in other words, as societies grow richer, the share of their income they spend on staple goods like food declines, but the share they spend on health-related goods increases.⁴ As the economy has grown and greater resources have become available for health the CEE region has

³ WHO Statistics (2008)

⁴ This relationship was first postulated and tested by Newhouse (1977). It has since been hardened by several empirical studies. There are, however, numerous exceptions to the rule, and there is no consensus on the magnitude of this effect. The variable under study is the so-called 'income elasticity' of health care demand: An income elasticity of 1.13 means that if the economy grows by 1%, health expenditure rises by 1.13%.

experienced impressive gains in the health status and thus in the length and quality of life of its citizens. In Poland, for example, life expectancy declined during the 1970s and 1980s. Since the return of the market economy, it has risen by four years, while infant mortality has more than halved.⁵ A similar trend exists in Hungary.⁶ In Slovenia, infant mortality has more than halved in the first ten years since the transformation alone.⁷ Even in Romania, which still has the longest way to go towards a modern health system, a decade-long trend of declining health outcomes has been halted and partially reversed.⁸

What makes a healthcare system 'sustainable' is its ability to raise enough resources to meet its costs, both now and in the foreseeable future.⁹ On both sides of the equation - the revenue and the expenditure side - some worrying trends lie ahead for the CEE region and not all of the CEE countries are equally well prepared to meet them. All of the looming problems have solutions, yet in many cases considerable changes will need to be made to the way that health care is both financed and delivered.

The main threat to sustainability comes from demographic development. Health care costs do not stay constant over a person's lifetime, but rise considerably with age.¹⁰ A rising life expectancy is thus connected to higher health expenditure. Life expectancy is forecast to rise tremendously in the CEE region, which is gradually catching up with the West. Even the more successful countries have only now reached the longevity levels that the EU-15 had reached in the early 1980s, and the process of catching up will continue.¹¹ For Poland and Hungary, for example, life expectancy is projected to rise by more than five years in the next quarter century. Needless to say, this is a positive development. Nevertheless, it calls current health care funding mechanisms into question.

The CEE region is now going through a demographic process which began decades earlier in the Western countries - but at a much higher speed

Demographic changes also affect the revenue side. Public health systems are constructed in such a way that the young pay the bulk of the treatment costs of the elderly. This is because an average young person pays much more into the system than he or she incurs in costs. The remaining amount, in a public system, is not set aside for the young people's later phases of life, but pays for the higher health costs of the current elderly generation. Such a system will run into trouble if there are less young people to pay into the system; a scenario that the CEE region is currently facing whereby the number of births per woman in her childbearing years is one of the lowest in the world. This figure (measured by the so-called 'Total Fertility Rate') is currently at 1.23 per woman¹², while, as a rule of thumb, the size of a population stays constant when the rate is 2.1. Even though it is likely to recover over the next decades, the region's population is still forecast to shrink by more than 10% until 2050.¹³ The remaining population will be significantly older.

⁵ Kuszewski & Gericke (2005) p. 5-8

⁶ Gaal & Riesberg (2004) p. 7-10

⁷ Albrecht et al (2002) p. 6

⁸ European Observatory on Health Systems and Policies (2000) p. 3-4

⁹ Speaking in economic terms, a health system is sustainable if the present value of expected future revenue equals or exceeds the present value of expected future expenditure.

¹⁰ For the case of Germany, we can observe that in comparison to the young (aged 15-30), health care costs are more than twice as high for those aged 45-65, five times as high for those aged 65-85, and ten times as high for those aged over 85. See Statistisches Bundesamt (2008)

¹¹ Pazitny (2008) p. 8-9

¹² Golinowska (2008) p. 24

¹³ Ibid., p. 22

In Hungary and Poland, the age composition of societies is currently such that for each person aged 65 or above, there are about five people of working age (15-64 years). By 2020, this ratio will decrease to around three workers per retiree, and in the period up to 2050, this number will drop to two.¹⁴ The CEE region is now going through a process which had set in decades earlier in the Western world - but at a much higher speed.

Yet, development in the CEE region is not simply the high-speed version of the history of the West. In the West, the tendency towards lower birth rates and population ageing set in at a time when the Western economies were already highly developed. While changing demographics do represent a large strain on western welfare systems, the West has been able to offset at least a part of this strain with increased productivity. CEE is in the peculiar situation of adopting the socio-demographic structure of the West, without yet having attained Western levels of prosperity. The process of catching up with the West is therefore moving at two different speeds - at considerable pace on the economic track, and at a much faster speed on the socio-demographic track. Therefore, all the challenges that Western countries are facing in reforming their health systems apply to the East as if through an amplifier.

There are additional cost pressures looming. Progress in medical technologies and the growing public demand for the use of the most innovative technologies are likely to be met with national policies of cost-containment, as has occurred in almost all health systems.¹⁵ In addition, higher wage demands from health care professionals will have to be met in the future. The region is already experiencing a brain drain of qualified doctors and nurses;¹⁶ a trend that is likely to grow with ongoing European integration and labour mobility. Keeping medical personnel wages low will eventually cease to be a viable option for disguising ongoing underfunding.

In a situation where the actors in the health system are already struggling with high debts, it is difficult to see how they will be able to cope with even greater spending needs in the future. In Poland, two thirds of all public health institutions are indebted, putting a large burden on the budgets of the local governments that run them. In the Czech Republic, 10% of the health sector's turnover consists of borrowed money.¹⁷ In Hungary, the national health fund has incurred a deficit in almost every year of its existence.¹⁸

Seen in this light, it becomes clear why the issue of financial sustainability is of key importance in CEE and explains why, in past reforms, all five countries in our sample have pursued differing variants and combinations of three basic options:

1. Rationing services and cutting health care spending;
2. Raising additional revenue, or;
3. Implementing structural reforms that improve the health sector's productivity.

The first and last of these basic options have proven to be extremely unpopular. Rationing health services (which can take various forms such as budget caps, price controls, intervening in physicians' prescribing patterns, delisting expensive drugs etc.) means denying or delaying care. Structural reform creates uncertainties. Even if reforms are well implemented, some people will lose in the

¹⁴ This is the inverse of the 'old-age dependency ratio', the ratio of those aged 65 and over to those of working age (15-64); see Golinowska (2008) p. 27

¹⁵ For the role of technological progress as a cost driver in health care, see, for example, Breyer et al (2005) p. 509-517

¹⁶ McKee & Fidler (2004) p. 89

¹⁷ Hrobon et al (2005) p. 19

¹⁸ Pazitny (2008a) p. 1

short-term, and interest groups may have considerable influence on reform trajectories.¹⁹ Leaving such considerations aside for a moment, the trajectory of structural reform is the most promising one. There are reasons to assume that there are vast, unused efficiency reserves in CEE health systems. Politically, however, this trajectory is the most challenging one, and does not often provide short-term benefits to reforming politicians who stick their heads over the parapet.

This leads us to the question of the availability of additional revenue in CEE countries, which depends foremost on how the money is raised. Some types of financing are more likely to incur harmful economic side-effects than others. A tax on labour, for example, decreases the take-home pay of the employee, while raising the cost of a working hour to the employer. In short, it reduces incentives to work²⁰ thus harming the basis on which it rests. This is especially true in CEE countries, where lower wage levels have compensated for lower productivity and attracted Western investors. Raising taxes to finance health would endanger this key economic advantage.

Health care in the CEE region is mostly financed through health insurance contributions. Since these contributions are levied as a percentage of wages, they may be compared to an earmarked or hypothecated tax on labour. This financing strategy is already meeting its limits. Romania and Hungary, for example, are already facing difficulties with the collection of health insurance premiums, with workers and/or employers trying to evade them.²¹ In 2007, Hungary implemented reforms including stricter enforcement of contribution payments, and new eligibility criteria that widened the base of contributors.²² Such measures may lift financial strain temporarily, but they cannot be repeated several times.

There are types of financing which would not burden the labour market and the overall economy. Particularly in a pure insurance system, premiums would be unrelated to a person's income or number of weekly working hours. The premium has to be paid anyway; it does not increase if people work longer hours nor decrease if they work less. The same is true for a fixed health insurance fee, and for co-payments.

In this light, financing in the Czech Republic appears especially problematic. Some 89% of health care is financed publicly, in other words through a combination of financing and insurance contributions.²³ Since 1 January 2008, user fees of approximately £0.85 per consultation and £1.70 per hospital day have been introduced. But the reform has sparked widespread opposition. There has even been an attempted appeal against it before the constitutional court.²⁴ This controversy demonstrates that a shift to economically less risky sources of funding is politically difficult. Critics of such financing measures are particularly afraid that they will hamper access to health care of the lowest income workers.²⁵

Romania lies at the other end of the spectrum. Public spending in Romania comes from a combination of wage-related contributions and general taxation, but it represents only about two

¹⁹ See, for example, Figueras et al (2004) p. 28

The authors argue that physicians had been a driving force behind the implementation of health insurance systems, since they assumed that separating health budgets from day-to-day politics would result in a more reliable income base for them.

²⁰ For an overview of the academic literature on the relationship between labour taxes and employment, see Heath (2006) p. 26-37. With differences in magnitude, there is ample evidence of the strongly negative effect wage taxes have on employment.

²¹ Mihalyi (2003) p. 5

²² OECD (2008) p. 65-67

²³ WHO Statistics (2007)

²⁴ BBC News 31 December 2007

²⁵ For a view opposing the Czech reforms, see, for example, Actualne.cz 16 April 2008

thirds of total spending. The remaining third is paid for privately by patients.²⁶ However, the high proportion of direct payments by patients does not result from a deliberate policy decision on the part of government. Rather, of all the countries examined, Romania has the least formalised health care system. The private payments mostly represent additional providers' charges outside of the formal remuneration system.²⁷

Such charges are not in themselves a problem; instead, their existence reveals that the formal system is underfunded, and the charges are a way of alleviating the shortage. But, as they are levied on an *ad hoc* basis and not properly documented, it is impossible to take out extra insurance to cover them. Patients thus remain vulnerable to the risk of sudden high health costs. It remains to be seen whether Romania, once it becomes a more formalised economy, integrates direct patient charges by health care providers into the formal pricing system, or whether it replaces them with increased public spending.

Poland represents an intermediate case between the highly formalised, mostly state-funded health system of the Czech Republic, and the far less formalised Romanian system with its large share of out-of-pocket payments. In Poland, private out-of-pocket spending plays a considerable role (almost 30% of total health expenditure²⁸). But, since a greater number of these patient charges are formalised, they can be levied in a more targeted way. The greatest expense item is pharmaceuticals²⁹, where there are, for example, exemptions for chronically ill patients.³⁰

Hungary has a similar level of private out-of-pocket expenditure as Poland³¹, of which a large portion is composed of informal payments.³² However, even though the public is used to sharing costs, there is a strong aversion to private expenditure. User fees have been introduced but, in a referendum in March 2008, an overwhelming majority (80%) of the public voted to abolish them.³³ The fees were meant not only to shift funding away from labour costs, but also to limit unnecessary use of the health care system such as repeated examinations or consultations for very minor ills. User payments do still play a role in the use of pharmaceuticals, however.³⁴

The future financial sustainability of health care in Hungary and Poland will, to some degree, depend on how informal funding will be handled in the future. If future health reforms manage to properly integrate these payments into the formal health system, they could prove an advantage. Patients are already used to sharing costs, so political conflicts over the issue could be minimised. If transformed into a regular pillar of funding, one which does not affect employment, and which provides incentives to use health services sparingly, a culture of cost-sharing and responsibility in health could emerge. On the other hand, if private funding is simply crowded out by increased public spending, then the mentality of 'vested interests' that makes health reforms so delicate will only be strengthened.

The most interesting arrangement, and also the system best placed to cope with additional spending needs in the future, can be found in Slovenia. The Slovenian public health system is, to a large extent, a partial-cover insurance. People pay for the services they use, and the national health insurance reimburses them with a part of the costs. The system pays back, for example, 75% of the costs of

²⁶ WHO Statistics (2007)

²⁷ European Observatory on Health Systems and Policies (2000) p. 23 & 63

²⁸ WHO Statistics (2007)

²⁹ European Observatory on Health Systems and Policies (2005) p. 5

³⁰ Kuszewski & Gericke (2005) p. 83

³¹ WHO Statistics (2007)

³² Gaal & Riesberg (2004) p. 44-46

³³ *Financial Times*, 11 March 2008

³⁴ European Observatory on Health System and Policies (2005a) p. 8

hospitalisation and of medicines which are included on a priority positive list. For other health services and products, reimbursement rates vary, ranging from 25% to 95%.³⁵ At first sight, one might assume that it makes no difference to patients whether they make gratitude payments to providers, or pay a policy excess which the public system does not cover. But in the longer run there is a world of difference between formal and informal payments. Since direct patient payments in Slovenia are properly documented, the risk becomes foreseeable and the cost calculable, not for a particular individual but for a large enough group. In other words, the risk becomes insurable. For this reason Slovenia is the only country in the sample where a notable supplementary insurance sector exists.

In all other countries in the sample, almost all private spending on health care consists of out-of-pocket payments. Slovenia is a notable exception where 47% of all private funding comes from payments by supplementary insurance³⁶ which has gradually replaced the out-of-pocket payments. A very high proportion (95%) of the insured voluntarily opt for some type of extra insurance, which covers most co-payments and, if people choose a more comprehensive policy, also covers the costs of additional services.³⁷

The supplementary insurance sector represents yet another opportunity, which is not fully exploited at the moment. Reforming a public health system is always a very delicate issue. In particular, the introduction of market-based solutions is often opposed on emotional grounds, despite their potential efficiency gains. Slovenia has been no exception in this regard. The supplementary sector, however, is far less delicate because it does not deal with matters of life or death and could thus be used as an experimental ground, where market-based approaches can prove their merits and allay public fears before being applied to the health system as a whole. The supplementary sector could therefore be used as an area for the private insurance industry to prove its capacities in the field of health care and gain patients' trust. Parts of this vast potential are lying idle at the moment. While some private companies have indeed become established, the Slovenian state still occupies a large share of this territory and crowds out private actors. Supplementary insurance is offered by the public monopoly health fund itself and another large company, which it also indirectly controls. The supplementary sector is also heavily regulated.

Nevertheless, of all countries in the sample, Slovenia might be best prepared to meet the challenges that come with an ageing society and ongoing medical progress. This may seem counter-intuitive since Slovenia has the highest health care costs of all the countries involved. It even spends a greater share of its economy on health care than the UK. But an important second pillar of health funding has grown in Slovenia, which can partially offset the deficiencies of the public funding system. Even if total costs were the same, regardless of how the burden is shared between the two pillars, the overall effects are very different. The premiums of the supplementary sector do not raise the costs of labour. They take the form of flat fees, not levies on wages, and are thus not a burden on the economy. Further, this sector allows for a more individual adaptation to rising health care costs. While some people

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³⁵ Albrecht et al (2002) p. 25-27

³⁶ WHO Statistics (2007)

³⁷ Albrecht et al (2002) p. 27-32; 69

may be content with the basic coverage provided by the government, others may demand full coverage and/or additional services. This in turn can be used as a platform for experimenting with alternative ways of delivering and financing health care and looking at alternative ownership of facilities.

To ensure greater sustainability, the other countries in the sample could learn from Slovenia's experience. That is, they could permit a supplementary sector to develop by switching the public system to a partial insurance system and making co-payments and additional payments insurable. As the premiums of supplementary insurance are unrelated to the cost of employment, this sector represents a more robust pillar that can withstand spending pressures. The supplementary sector could become the testing ground for reforms that would otherwise not be politically feasible.

Access to new health care technologies

With regard to access to health care technologies, CEE health systems have generally lagged hopelessly behind the standards observed in the West. It is therefore not a surprise that catching up on its ability to provide cutting-edge medicines and medical equipment has been a policy priority. The first cornerstone of this strategy was privatisation. For example, in all countries in the sample, the pharmaceutical sector was the one in which privatisation went furthest. Pharmaceutical producers and retailers are, in general, private companies. In Poland in particular, this has led to the emergence of a competitive pharmaceutical industry and a dense network of pharmacies.³⁸

But how can medical and technological innovation be boosted without risking unaffordable overconsumption? How can incentives be found that promote research and development, while limiting it to priority areas? How can CEE countries address the issue that budgets are still much lower than in the West, while expectations are not?

Similar to the overall pan-European environment that tends to put emphasis on cost-containment and rationing policies some key instruments have emerged in CEE countries, where governments have begun to try to "square" the circle of promoting accessibility without losing control over costs.

These include a number of price control mechanisms, usually in the form of what is known as 'reference pricing'. Reference pricing means that drugs which are judged to be comparable are grouped together, and a common price is set for all drugs within a group. Reference groups can be defined narrowly, as drugs with the same active ingredient, for example, or more broadly, as drugs within the same therapeutic class. Alternatively, prices are sometimes set by adopting the price of the same drug from a selected comparison country, or the average of a number of selected countries.

Reference pricing need not be by definition exactly the same as a price control. There are countries (though not in this sample) where the reference price simply serves to set a maximum level of reimbursement by the health insurer. In such a model, producers can charge extra amounts, but they will have to bill patients directly, which means they have to convince patients that their drug is worth the extra money.

The countries in this sample do limit reimbursement in this way, but they also take the process further by setting a ceiling for the price which producers are allowed to charge. Price ceilings derived from a 'basket of countries' are applied everywhere. In Hungary and the Czech Republic, in addition, the price of a new drug must be similar to the price of already existing 'comparable'

³⁸ Kuszewski & Gericke (2005) p. 82

drugs.³⁹ It is worth bearing in mind the criteria being chosen for what is deemed comparable and why. Grouping certain types of medicines or treatments together can be very beneficial to politicians wishing to keep costs down but the choice of what is being grouped together may also have a direct impact on patients' ability to access the latest medicines or treatments for their condition.

It is generally recognised by economists that price controls hurt consumers and producers alike. There is no way of knowing what the 'optimal' price of any good or service is. If the decreed maximum price is 'too low' (lower than the market price would have been), it is no longer lucrative for producers to supply the amount of the product which consumers desire and a shortage results. In the longer run, incentives to introduce a product to the market in the first place are weakened. If this results in impeded access to superior treatments, even the target of cost reduction may be missed: The costs may simply be shifted from pharmaceutical care to hospital care.⁴⁰

The issue of price controls includes more indirect measures such as a monitoring of physicians' prescribing patterns in Hungary, Romania and Slovenia. The country in the region with the most restrictive drug policy is Romania.. There, even the profits of drug producers are regulated, and physicians are faced with maximum prescription budgets.⁴¹ It is clear that such a policy conflicts with the therapeutic autonomy of physicians.

A different instrument for prioritising expenditure on health care technologies consists of linking the 'generosity' of reimbursement to the 'importance' of a drug. Broadly speaking, this means that only drugs which are considered a 'priority' are fully paid for by the health insurer. Drugs which are considered to be of medium importance are paid for partially, drugs which are classified to be of minor importance only a small part of the cost is refunded to the patient. More specifically, drugs are grouped into priority lists, and the rate of reimbursement is different for each list. In Romania, there are three of these lists; with reimbursement rates of 100% for the high, 90% for the intermediate and 50% for the low priority list.⁴² Slovenia has a priority list, an intermediate list and a negative list, with reimbursement rates of 75%, 25% and 0%.⁴³ Poland has two different reimbursement rates, plus some higher ones for medicines that are of particular importance for the chronically ill.⁴⁴ Hungary applies four different rates.⁴⁵ The Czech Republic provides a somewhat different example, in that prioritising has not been as explicit as elsewhere in the region.⁴⁶ Again, there is no general consensus on how to define a 'priority level', how to mark the dividing line, or how differentiated the system should be (that is, how many priority levels there should be). The use of Health Technology Assessment (HTA) – another form of attempting to set health priorities at the national level as a means to answering such questions in a more systematic and explicit way - has not yet fully reached the CEE region.

Despite relatively high spending, rapid access to medical innovation is still an area in which the CEE region lags behind.

³⁹ Espin & Rovira (2007) p. 34 - 35

⁴⁰ Lichtenberg (1996)

⁴¹ Espin & Rovira (2007) p. 34 - 35

⁴² Haivas & Grigore (2007) p. 24-25

Reference pricing and differentiated reimbursement are applied jointly, meaning that the reimbursement rate applies to the reference price. If the producer charges 110 currency units (CU), the reference price is 100 CU, and the reimbursement rate is 90%, then the patient receives a refund of $100 \times 0.9 = 90$ CU and has to pay $110 - 90 = 20$ CU out of pocket.

⁴³ Albrecht et al (2002) p. 55

⁴⁴ Kuszewski & Gericke (2005) p. 83

⁴⁵ Gaal & Riesberg (2004) p. 85

⁴⁶ Rokosova & Hava (2005) p. 35

With the exception of Slovenia, the role of supplementary insurance that could cover some of these payments is negligible. Private health insurance in Poland and Hungary represents only 1% of total health care spending respectively.

Spending on medicines is generally high. It represents 1.7% of GDP in Poland, 1.8% in the Czech Republic, and 2.4% in Hungary, compared to 1.5% on OECD average.⁴⁷ Since CEE countries still spend a lower share of their income on health care than western countries, this means that within the health budget, healthcare technologies and medicines represent a higher percentage of the total expenditure on health.

Yet, despite relatively high spending, access to innovative healthcare technologies and medicines is still an area in which the CEE region is lagging behind. The Euro Health Consumer Index 2007, a scoreboard that measures the performance of European health systems in a number of areas, rates all five countries in the sample as 'poor' in categories related to access to medicines. The time that elapses between the date a drug is registered and the date that people can actually obtain it (that is, when it is reimbursed by the health insurer) is high. At the same time, the speed by which new medicines (in this case, cancer drugs) are widely prescribed and used, is low. This occurs despite the fact that in all countries except Romania the catalogue of drugs that national health insurers cover is relatively generous.⁴⁸ The poor results on the innovation score are thus a product of bureaucratic hurdles and the slow uptake of technologies which are theoretically available.

Another important element concerning access to healthcare technologies is the amount of information available to patients. A patient who wants to know more about his or her medical condition and the possible available treatments - including the most recent and cutting edge technologies - should have access to "user friendly" information, without being dependent on the time and availability of his or her physician/medical experts.

Consequently, the degree of uptake of innovative healthcare technologies and medicines is also dependent upon the availability of user-friendly information.

It is in this category, however, that all countries in the sample except Romania achieve low scores in the Euro Health Consumer Index.⁴⁹ This does not only mean that patients are not sufficiently informed about their condition or available treatments. It also means that patients may be less inclined to make out-of-pocket payments towards a given medicine, which they might well have chosen to do had they been better informed of the benefits.⁵⁰ Consequently, as long as information to patients is not sufficiently available, the effects of pricing mechanisms that are based on the model of the lowest common denominator in a given therapeutic class or on valuation methods assessing the importance of a drug may have the same effects as price controls, which save costs in the short term but hinder access to innovative products in the long run.

With sufficient information patients would assume a greater responsibility for their decisions and have the opportunity to make these choices in a well-informed manner.

⁴⁷ OECD Indicators (2007)

⁴⁸ Health Consumer Powerhouse (2007) p. 19-20 & 12-15

⁴⁹ ibid

⁵⁰ On inertia in decision making under poor knowledge, see Madrian & Shea (2001)

To our knowledge, it has not been empirically tested whether this logic also applies to health care. But neither is there a reason to assume otherwise.

Conversely, the business environment may be such that producers, physicians and consumer protection agencies have sufficient incentives to make information easily available and accessible to people who are not medical experts. If such a change can be managed, the break away from the old top-down approach of health care organisation would be taken a step further. A new division of roles, with a much more active role for the individual patient (for those patients who are willing to assume such a role) would become feasible. Patients would assume greater responsibility for their decisions, and would not be fully spared from the costs. But they would also have a large range of choices, and the opportunity to make these choices in a well-informed manner.

Patient empowerment

The philosophical ideal behind the creation of public health systems is to provide 'equal access' to health services, regardless of income. It is often believed that 'equal access' is the same as 'free access'. There is, however, a conflict of priorities. We want health services to be affordable for all. But we also want providers to be responsive to our needs. We want them to be alert in finding out which services, and which ways of providing them, are particularly important to patients, and to act accordingly.

In other sectors this kind of responsiveness to consumer preferences is the norm, because there is a 'signalling system' of market prices which shows producers what their customers want and how much of it they want. In a public delivery system, these signals are switched off. But without this communication medium, how do we know whether we need, for example, more inpatient or more outpatient care? More specialists or more general practitioners? More preventative or more curative facilities? More cardiologists or more cancer experts? All of these important questions of how to design a system will have to be answered in a different way, for example, by professional bodies.⁵¹

However, it is important to avoid becoming centred on the needs of providers, rather than patients. The Semashko model was a glaring example of this kind of system - exclusively run by experts and political needs with no notion of 'patients' rights' or priorities. One of the main political tasks after 1991 thus had to consist in shifting power, and making health systems more responsive to patients instead of providers.

Choice of providers

In the Semashko state health system, patients were passively assigned to a provider according to their area of residence. They could not choose one according to their own needs and preferences. Today, in CEE countries, patients enjoy a much wider freedom of choice. They still have to register with a GP instead of choosing one as the case arises, or of going to different GPs for different problems. But it is up to them which GP they register with, and this choice can be reversed. GPs have thus lost the privilege of a guaranteed stock of customers.

When patients are not customers but recipients, there is a danger that a system becomes centred on the needs of providers, not of patients

This change has introduced a degree of competition between doctors. It does not go as far as in other sectors. Notably, doctors cannot attract customers through lower charges, or charge more if they have gained an especially outstanding reputation. Nonetheless, patients can pick the doctor that offers them the best service, surgery equipment, or whatever it is that the patient values. Some

⁵¹ In reality, most health systems are hybrids, they are neither fully run by directives nor by market prices, but with both organisational principles operating alongside one another, with these principles often conflicting with one another.

restrictions still remain. In Slovenia and Hungary, patients who have registered with a GP are committed for at least one year before they can switch again. In the Czech Republic and Romania⁵², this period has been shortened to three months, an arrangement which comes close to completely free choice.

It is noteworthy that this free choice of GPs is not only guaranteed on paper, but actually exists in practice for most people. According to the Euro Health Consumer Index, patients in all countries involved - except Poland – have a good chance of seeing a GP on the same day that they fall ill.⁵³

The situation is similar though not as unequivocal for specialist care. Patients in the Czech Republic enjoy the greatest freedom of choice in this area, because the Czech Republic is the only country in the sample where patients can book an appointment with any specialist they wish without seeing a GP beforehand.⁵⁴ In other countries, patients need a referral from their GP before they can see a specialist (a 'gatekeeper system'). Once their GP has issued a referral, it is, however, up to them which particular specialist they choose. In Romania and Hungary, the gatekeeper system is often bypassed.

Debates have taken place in all of these countries about the desirability of completely free provider choice. Typically, defenders of certain restrictions would argue that these limitations save the system from unnecessary expenses. Without a gatekeeper system patients would see specialists for relatively simple problems. They argue that this represents a waste of resources since specialist services are more expensive, and should be reserved for the most complicated cases. Along the same lines, it is argued that if people could choose a different GP for each case, they would change GPs very frequently even for non-medical reasons.⁵⁵ This increases administrative expenses. On the other hand, evidence from international surveys suggests that patients are more satisfied with their health care when they have unrestricted provider choice.⁵⁶

An interesting solution that combines the advantages of both can be found in the latest series of health reforms in Germany. Germany has never had a gatekeeper or a registration system. Patients can see any specialist and any GP they like, with few exceptions. Recently, social health insurance funds have been able to offer a so-called 'family doctor tariff'. People who opt for this variant commit to register with one GP, and not to consult specialists or other GPs without a referral from the GP they are registered with. They give up some degree of choice in exchange for a lower premium.⁵⁷ Given that insurants who choose this option incur lower costs, and that the health fund can lower their premiums accordingly⁵⁸, this could become a model in which everyone can decide how much provider choice they want without inflicting additional costs on others.

CEE countries with gatekeeper systems could use this idea but adapt it to their different starting positions. Health funds could offer additional tariffs which give the insured a less restricted provider choice, but at premiums that fully cover the additional costs.

⁵² European Observatory on Health Systems and Policies; HiT Country Profiles of Slovenia, Hungary, the Czech Republic, Romania and Poland

⁵³ Health Consumer Powerhouse (2007) p. 19-20 & 12-15

⁵⁴ Rokosova & Hava (2005) p. 49

⁵⁵ See Gertham et al (2000) p. 33-34 for some empirical findings on this aspect.

⁵⁶ Among other things, this has to do with the fact that gatekeeper systems are associated with longer waiting times for specialist care, see Siciliani & Hurst (2003) p. 36

⁵⁷ Ministry of Health, Federal Republic of Germany (2008)

⁵⁸ The insurance premium would have to be actuarially lower. Each group of insurants would then pay premiums at least as high as the expected costs which this group incurs. The premium would thus reflect the different behavioral incentives associated with different levels of provider choice.

Choice of insurers

All countries in the sample have moved away from a system in which government is both the sole payer and provider of all health care. Instead, there are now 'middle-men', that is, the health insurers, who purchase health services on the basis of contracts with providers. This move towards insurance-based systems has been a structural shift. Funding from tax money continues to play a role, but it has been reduced to between 7% (Slovenia) and 18% (Romania) of total health expenditure.⁵⁹ In Slovenia, for example, 98.5% of health expenditure had come from general taxation in the year prior to the inauguration of the insurance system.⁶⁰

After establishing a semi-independent payer side, a logical next step would be to allow for various competing insurance providers and free choice between them. International evidence suggests that patient choice between various insurance providers leads to increased service quality and greater customer satisfaction.⁶¹ But to date, the only country in the group in which patients can choose between various health insurers is the Czech Republic. Slovenia, even though it had several insurers under public law (a 'Bismarck system') until well into the 1950s, opted for a monopoly system in 1992. There is some variation across regions due to some independence of regional branches, but the important variables are set at the national level by the Health Insurance Institute.

Similar arrangements exist in Romania, where the National Health Insurance Fund has negotiated collective framework agreements with all health providers jointly since 1998, and in Poland, where a National Health Fund was established in 2003. In Hungary, a reform bill permitting several competing insurance companies was under way.⁶² However, resistance both from the political opposition and from within the government coalition itself, delayed its implementation, and finally managed to freeze the proposal. For the time being, the move towards a multiple insurance system involving private sector payers is off the agenda, so the strongly centralised National Health Insurance Fund will remain a monopoly insurer.

The only established multiple insurer system is thus to be found in the Czech Republic. Czech health funds compete in terms of the service quality they provide to their customers. They can offer 'luxury' items that go beyond the publicly determined benefit catalogue. What they cannot do, however, is offer a reduced catalogue in exchange for a lower premium, or one which offers a lower rate of reimbursement.

Both the Czech Republic and Slovenia offer some kind of choice as far as insurance is concerned, though in a very different way. Patients in Slovenia do not have 'horizontal choice' (between different insurers), but they do have 'vertical choice' (between different depths of coverage) through the option to purchase more individualised extra packages. In the Czech Republic, people enjoy 'horizontal' but no 'vertical' choice – there are several companies to choose from but they offer largely the same product.

⁵⁹ WHO Statistics (2007)

⁶⁰ Albrecht et al (2002) p. 27

⁶¹ See Health Consumer Powerhouse (2007) p. 3-4

The report coined the phrase 'Bismarck beats Beveridge', since Bismarck systems typically offer a choice between various insurance institutions. It contrasts Bismarck systems to single payer systems with a state-run monopoly health service, i.e. Beveridge systems. Formally, the single insurance systems of the CEE countries are not Beveridge systems because their insurance institutions are not directly run by the government. But in practice, a Bismarck system with a monopoly insurer and limited independence becomes very similar to a Beveridge system like the British NHS.

⁶² Act I of 2008 on Health Insurance Management Funds, English translation, second (not final) version

While the Hungarian system generally has to be classified as a monopoly insurance system, there have been experimental projects which have allowed people to partially opt out of the system. Since 2003, Hungarian patients can become clients of a 'Health Maintenance Organisation' (HMO), an institution which is like a small health care system of its own i.e. both a health insurer and a health provider.⁶³ HMOs started as a strictly geographically limited project and have since been expanded. In the Hungarian context, 'HMO' stands for a concept in which some providers decide to group together and manage a pool of patients jointly. They then receive a notional budget based on the number of patients, with some extra money for those that are especially ill and a reduction for especially healthy people. If they have money left at the end of the year, they can keep it. These HMOs thus have an incentive to keep costs down, but not to cut quality of care because patients cannot be compelled to stay with them. In fact, they are not even required to use the provider network of the HMO, but can switch to external providers. The term 'opt-out' is somewhat misleading. The HMO budgets are notional and they are not really separated from the overall health care system, but rather a subset within it. The boundary between the HMOs and the overall system is fluctuating.⁶⁴ Nevertheless, the HMO experiment provides some interesting features.

Hungary, as mentioned, was also preparing the move from national monopoly insurance to a multiple social insurance system. Apart from establishing a more diverse payer side, the proposed reform (which as discussed above is not off the table) also attempted to mobilise private investment into the health insurance market. The health funds that were to be created could have been partially sold to private investors. It remains to be seen whether an opportunity to revive these plans will come up in the near future.

Hence, there have been improvements in giving people a choice of insurers, but major restrictions still apply everywhere. If best practice examples were to be identified, these would be 'horizontal' choice between different insurers in the Czech Republic, 'vertical' choice between different depth of coverage in Slovenia, and 'inter-modal choice'⁶⁵ through the option of a partial opt-out in Hungary (see Table 2).

The Hungarian version of HMOs, however, prevents this model from fully exploiting its potential. HMOs generally owe their cost advantages to providing a systematically guided care, a high capacity utilisation of their facilities, and an unhindered flow of information within the organisation. They provide care in a more subsidiary manner, and have an incentive to avoid re-referrals and repeated examinations. These features, however, can only unfold when HMOs can really make sure that their clients use the HMO-internal medical infrastructure first. This can be done, for example, by limiting reimbursement of the costs of services that are provided outside of the HMO. The HMO model is about lower premiums in exchange for restricted choice.⁶⁶

There have been improvements in giving people a choice of insurers, but major restrictions still apply everywhere.

⁶³ A Health Maintenance Organisation (HMO), an integrated provider-insurer, is an alternative to traditional health insurance. They are most widespread in the US and Switzerland. In Hungary, they are still part of the existing health insurance system, with some autonomy rights.

⁶⁴ Mihalyi (2003)

⁶⁵ People have inter-modal choice when they can choose between companies from different markets to fulfill the same aim. Intra-modal competition is what takes place between different airline companies; inter-modal competition is what takes place between airline companies, train companies, and traffic on motorways.

⁶⁶ HMOs have a strong incentive to cut costs, which can be in line with the interests of patients or not. Cost-cutting activities that work in favour of the patient include higher capacity utilisation, avoidance of fixed cost duplication, improvements due to better information flow, a cutting of administrative expenses and an emphasis on disease prevention

Table 2: Three types of choice in health insurance

	Horizontal choice	Vertical choice	Inter-modal choice
Definition	choice between different insurers	choice over extent of coverage (from basic to luxury) and/or different depths of coverage (from partial to full reimbursement)	choice to opt out of the 'traditional' system
Advantage	<ul style="list-style-type: none"> incentives for insurers to drive up service quality and administrative efficiency insurers with different profiles address different patient groups 	<ul style="list-style-type: none"> recognises differences in people's demand for health services and in their willingness to assume costs 	<ul style="list-style-type: none"> allows experimentation with different organisational forms within health care (e.g. specialisation vs. integration); puts the public system under competitive pressures
Example in the CEE region	Czech Republic; several public insurance institutions	Slovenia; supplementary insurance readily available	Hungary; partial opt-out to privately run HMOs possible
Other examples	<ul style="list-style-type: none"> multiple insurance systems in the Netherlands and Germany 	<ul style="list-style-type: none"> supplementary insurance through <i>mutuelles</i> in France 	<ul style="list-style-type: none"> HMOs in Switzerland high deductible insurance complemented by Health Savings Account (HSA) in the US

Structural efficiency

Primary care

With the transition towards insurance based systems, the Semashko solution, in which all doctors were public employees became obsolete. Today, GPs are self-employed entrepreneurs contracted by the health funds. They either run their own surgeries, or rent equipped premises in publicly owned primary care centres.

The way in which physicians should be paid and the incentives this provides has been a health reform issue in all countries in the sample. Debates have centred on whether doctors should be paid a lump sum per registered patient or a fee for each individual service they provide. In the first mode (a

and long-term thinking. Under the wrong circumstances, cost-cutting can also take the form of denying services which would be recommendable from a medical point of view. Broadly speaking, as in many other industries, it depends on the HMOs market power which aspects will dominate. One of the theoretical polar cases, a monopoly market with one single HMO, would not be distinguishable from a Semashko health system.

'prospective payment'), physicians assume a greater financial risk. The lump sum they receive is based on the **expected** medical needs of their group of patients. Their **actual** medical needs can be very different. If they are lower than expected, doctors have made a good bargain, if they are higher, physicians lose earnings and may even incur losses. When doctors are paid per service (a 'retrospective payment'), this risk is taken away from them and borne by the insurer.

Most of all, the theoretical literature of health economics suggests that the way in which physicians are paid may have an impact on their diagnoses. The literature suggests that when physicians are paid for each service they perform, there may be a financial incentive to 'overtreat'. In contrast, when physicians are paid per registered patient, regardless of the number of consultations and interventions they actually perform, there may be an incentive to 'undertreat'. In the latter case, patients with extended needs for medical care may become unattractive to doctors.⁶⁷

CEE countries have tried to combine the favourable aspects of both models. In Poland, GP's payments are based on a three-stage capitation.⁶⁸ They receive lump sums per registered patient, with the sum increasing for elderly patients, making it more lucrative to keep them as registered patients. If their services are inadequate, GPs run the risk of losing these patients to a competitor. Hungary operates a similar but more differentiated capitation system. There are five stages related to age, and further adjustments are made if a GP can demonstrate specific additional qualifications.⁶⁹ In the Czech Republic, there is a capitation-based payment which is adjusted by case-related fees for services which are in particularly high demand.⁷⁰ Slovenia⁷¹ and Romania also operate combination models. The choice between capitation and fee-for-service payments thus ceases to be an either/or in the region. Instead, both basic models can be combined in various ways.

Since the health systems in the sample differ in many respects, it becomes difficult to assess the isolated effects of the different payment modes. The picture becomes even more complex when taking into account how primary care interacts with specialist and hospital care. Providing fewer services can mean cutting back on repeated examinations that have little medical benefit, or on examinations for conditions where little can be done to increase the self-healing process. But it can also take the effect of referring patients to other providers quickly.⁷² If capitation payments induce GPs to refer their patients to specialists quickly, the costs of primary care will indeed decrease, but only at the expense of cost increases in the specialist sector. Total costs would rise without improving quality of care. The same payment mode can thus have different effects in different health systems, depending on how primary care is connected to other sectors. If GPs share a financial responsibility also for referrals, or if there are other incentives not to refer excessively, a shift to a more prospective payment mode can better fulfil its intended consequences than if these conditions are not given.

Internationally, there is evidence that health systems in which providers are predominantly paid on the basis of flat fees are less cost-intensive.⁷³ But this does not tell us much about individual countries, or about whether these savings take place in the 'right' way.⁷⁴ To obtain greater clarity in this important incentive variable, it would be desirable to allow different payment modes *within* the

⁶⁷ For a detailed analysis of the incentives provided by different payment mechanisms, see Breyer et al (2005) p. 381-420

⁶⁸ Kuszewski & Gericke (2005) p. 88-91

⁶⁹ Gaal & Riesberg (2004) p. 96-97

⁷⁰ Rokosova & Hava (2005) p. 75-76

⁷¹ Albrecht et al (2002) p. 64

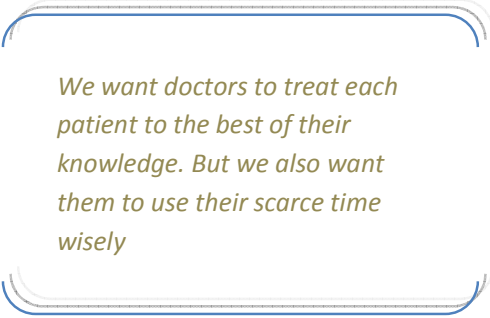
⁷² McKee & Fidler (2004) p. 86

⁷³ Gertham et al (1992) p. 79

⁷⁴ The 'right' way means that costs are saved by providing fewer nonessential services, not by excluding vulnerable patients from treatment.

same country. In a multiple insurance system as in the Czech Republic, this can be achieved relatively easily as each individual fund could be allowed to negotiate with GPs and other providers separately. For example, fund A could pay 'their' providers according to a three-stage capitation; fund B according to a five-stage capitation, and fund C would pay per service but with some upper limits. In a segmented system like the Slovenian one, with a basic and a supplementary insurance sector, it is in the supplementary sector where different payment mechanisms could be experimented with. In a national monopoly system, there is probably less room for experimentation, but giving the regional branches sufficient autonomy could allow for some variation.

It is a fundamental question for each health system how it should pay its doctors, and which incentives it should provide. The optimal system would enable GPs to treat each patient to the best of their knowledge, but also makes them aware of the costs and incentivise them to use their scarce time wisely. This is a tightrope walk and theory does not yet provide an answer as to which payment mode is 'optimal'. As long as health funds receive higher sums for high-risk patients, so that there are no reasons for a 'cherry-picking' of the healthiest clients⁷⁵, a trial-and-error process, accompanied by comprehensive data collection and rigorous monitoring of results, is probably the best way to reach a satisfactory outcome.



We want doctors to treat each patient to the best of their knowledge. But we also want them to use their scarce time wisely

Hospital and specialist care

As for the division of tasks in the running of health care institutions, roughly speaking, the following pattern has emerged; municipalities tend to run primary care centres, provinces run hospitals and clinics, and university hospitals are at the national level of responsibility. In principle, health funds can sign contracts with private hospitals as with public ones, so that patients could opt for either. In actual fact, the private hospital sector is very limited in all five countries in the sample. Patients cannot really choose between public and private hospitals. This is due to the model of 'dual financing', in which government pays for the medical devices that public hospitals buy. This is a substantial tax subsidy to public hospitals which private ones do not receive. In the Czech Republic, a sizeable private sector has developed nevertheless, representing 10% of all hospital beds.⁷⁶ In Poland, Hungary, Slovenia and Romania, the size of this sector is negligible.

In all countries in the sample, the hospital sector is extraordinarily large. The number of hospital beds per 1,000 inhabitants is higher than the average for Western Europe, even though the proportion of old people is still greater in Western countries. The average length of stay of a

⁷⁵ In a social insurance system, health funds are typically not permitted to charge different clients different rates. But, if all clients pay the same rate, then it is not lucrative to insure people whose health risks are so high that the expected costs of their treatment are higher than the premiums they pay. Therefore, multiple social insurance systems with free choice need some way of compensating funds with high-risk clients. They therefore always run some form of risk-equalisation scheme. In a basic variant, risk equalisation is based on demographic parameters, usually age and sex. More complex forms include some approximation of the morbidity profile of a fund's clients. Ideally, funds would only compete for the most efficient administration and the best services, not for who attracts the healthiest clients. But the more accurate a risk-equalisation scheme is, the more complex and bureaucratic it becomes. Private insurers, in contrast, charge risk-related premiums, with the higher costs related to age funded from old-age reserves. Proponents of a fully privatised health insurance system, such as Peter Oberender or Johann Eekhoff, propose a combination of fully risk-equivalent premiums and targeted government subsidies to people who could otherwise not pay for their health insurance. For a detailed description of how such a system would work, see Eekhoff et al (2005)

⁷⁶ Rokosova & Hava (2005) p. 54

hospitalised patient is higher as well. Even the poorest country examined, Romania, affords more hospital beds, higher admission rates and longer stays than the European West.⁷⁷

These data suggest that the secondary care sector is overused and poorly managed.⁷⁸ The hospital sector is typically the largest chunk in a health system. If it is inefficiently run, this represents more than a mere financial problem. Resources that are wasted on poor management are no longer available to buy new equipment, shorten waiting lists, and improve other essential quality variables. Reforms in this field have, however, proven politically difficult.

There have been attempts to rationalise and reduce overcapacity in all five countries. In Poland, for example, the number of hospital beds has been cut from 6.3 per 1000 inhabitants around the time of the Solidarity (Solidarnosc) victory to 4.7 in 2002.⁷⁹ But such attempts have often followed a political rather than an economic rationale. The closing of a hospital is very likely to provoke resistance. Strategies to downsize the sector have thus consisted in across-the-board reductions of the number of beds in a multitude of hospitals, instead of a pinpointed closing of selected, underused institutions.⁸⁰ In Hungary, for example, 9,000 hospital beds have been cancelled in the reform period, but only 6 institutions have been closed.⁸¹

The 'raison d'être' of any health system is to restore health and well-being. The fact that it creates employment and many well-paid jobs is a welcome side-effect, but it is not the purpose of a health system.

Regional lobbying for the conservation of existing institutions is strong. It must, however, be recalled that the *raison d'être* of any health system is to restore (and create) health and well-being. The fact that it creates employment and many well-paid jobs is a welcome side-effect, but it is not the purpose of a health system.

Having said that, the rationalisation strategy of cutting the number of hospital beds is a short-sighted one. It does not address the structural deficits that explain why these health systems need such a large hospital sector in the first place. Without addressing these, cutting the sector down in size will only reduce the quality and accessibility of care. In both fields, there are already considerable shortcomings to be addressed. As the Euro Health Consumer Index shows, the countries in the sample have long waiting times for several major non-acute operations. Surprisingly, the exception is Romania, which receives an intermediate mark. In addition, Hungary, Poland, Romania and Slovenia receive poor marks for MRI scan waiting times.

The index also ranks a number of outcomes mostly related to the hospital sector, such as infant mortality and MRSA infections. Hungary, Poland and Romania rank poor in all sub-categories. The Czech Republic and Slovenia receive mixed results, i.e. they record good outcomes in some and poor outcomes in other categories. While there are a number of strengths - the Czech Republic has

⁷⁷ European Observatory (2000) p. 39-45

⁷⁸ There is, of course, no reason to assume that the size of the hospital sector in Western Europe is the 'right' size. Neither does any measure exist to determine the 'optimal size' of a hospital sector or the 'optimal composition' of a health system. Different compositions of health systems could reflect differing needs and/or preferences of the population. But we can safely say that this is not the reason why large hospital sectors prevail in the CEE region. The creation of strongly concentrated health systems in the Semashko era followed ideological reasons, and their preservation largely follows political considerations.

⁷⁹ Kuszewski & Gericke (2005) p. 60

⁸⁰ Figueras et al (2004) p. 17

⁸¹ OECD (2008) p. 66

low infant mortality, Slovenia low heart attack mortality,⁸² and all five score reasonably well in waiting times for cancer treatments - there are also a number of worrying results.⁸³

In this light, it becomes clear that any effort to rationalise the hospital sector must focus on increasing internal efficiency which will eventually make some beds and other input factors redundant. Their quantities would fall, but that would be a consequence, not the reform itself. The use of incentives for efficiency is so far underdeveloped. The budgets of hospitals are often determined by extrapolating their past expenses, without taking performance sufficiently into account. Bailing out hospitals which are factually bankrupt has also been a frequent practice.⁸⁴

Another major reason for the overuse of hospital care is the lack of 'downstream' alternatives. If primary and social care are underdeveloped, hospital and specialist care will be left to handle routine cases that could better be dealt with in the former sectors. In Romania, it has been estimated that about 40% of hospital occupation was related to cases which were, in fact, social care cases.⁸⁵ As there is only a rudimentary infrastructure of social care and an underdeveloped one of primary care in Romania, patients switch to the most specialised and thus most expensive sector.

Romania may be an extreme example in this regard, but to a certain degree, the phenomenon of overspecialisation is prevalent in all the examined countries. The ratio of GPs to specialists is about 1:3 in Hungary, 1:4 in the Czech Republic, and even 1:16 in Poland where the job of GP was not even known as a profession in its own right until 1991. For comparison, this ratio is 1:2 on the OECD average, and close to 1:1 in countries like Belgium, France, Canada and Australia.⁸⁶

The current imbalances are not to blame on particular political parties or policies. They are rather an inheritance from the Semashko model with its preference for large integrated specialist centres and a highly concentrated medical infrastructure. What needs to be examined is why actors in CEE health systems have not been able to correct these imbalances. After all, health funds, as the payers in the current system, are interested in keeping unnecessary costs down. Quite obviously, the tools they have are not sufficient to sort out structural deficiencies. Perhaps the most challenging question for CEE health reform is not; "How can we achieve structural adjustment?", but rather; "How can we ensure that the CEE health systems are able to generate structural adjustment **in and of themselves?**" Regardless of which party policies are pursued at a particular time, a health care system should be structured in such a way that its actors are both able to and responsible for putting precious health care resources to their best possible use.

The experience so far suggests that hospital sector reform is unlikely to come about if it conflicts with other political considerations, such as preserving existing institutions and employment. It thus appears sensible to separate hospital management from politics to a much greater degree. This could be done by giving hospitals full autonomy over the use of their budgets and their employment, but combined with a more outcome-related payment, and with full responsibility for the results. This would include the possibility of a hospital bankruptcy.

⁸² Mortality rates tell us nothing about the number of people that suffer from heart attacks in the first place. This number would obviously be strongly influenced, if not determined, by lifestyle issues, which have nothing to do with the health care system. Instead, mortality rates look at the number of people that have already suffered from a heart attack, regardless of how big this group is. The mortality rate is the share of the people within this group that do not survive the attack, or live through a critical period after the incident.

⁸³ Health Consumer Powerhouse (2007) p. 19-20 & 12-15

⁸⁴ European Observatory on Health Systems and Policies; HiT Country Profiles of Slovenia, Hungary, the Czech Republic, Romania and Poland

⁸⁵ European Observatory on Health Systems and Policies (2002a) p. 6

⁸⁶ OECD Indicators (2007)

In this context, it may also make sense to hand over a greater share of hospital service provision to the independent sector. A possible step to ease this could consist in ending dual financing. In this case hospitals would have to regain the costs of buying equipment through their charges, just like wages and other costs not directly related to a particular service. They would be paid for by health funds, not government budgets. Independent sector hospitals could then take part in the tendering procedure alongside public hospitals on a level playing field. This is currently not the case, as independent hospitals have to pay for their own capital costs while public hospitals do not. The independent sector could be better suited for a restructuring of the hospital landscape⁸⁷, because it is not burdened with a political agenda.

Lack of knowledge about providers' performance is a result of viewing health care in a 'welfarist' rather than a 'consumerist' manner.

A more decentralised and self-accountable hospital sector would also be much more flexible. It has already been mentioned that a dramatically aging population lies ahead for the CEE region. This represents a multitude of challenges, since old people do not only require more but different health services and products than young people. Older people, for example, are more likely to suffer from several diseases at the same time ('multimorbidity'). They will therefore more often require a closer coordination of various care services⁸⁸, while for younger people a more segmented service provision may be more appropriate. Health systems will have to be flexible and responsive enough to adjust to this change in requirements.

Competition

GPs, specialists and hospitals compete for patients in terms of their service quality. The same is true for health funds in the Czech Republic and supplementary insurance providers in Slovenia. This is one of the fundamental changes that distinguish the current systems from the Semashko health system.

But, competition can go much further than "Provider 1 vs. Provider 2" and can, in fact, occur on several layers. In Slovakia, for example, health insurers do not have to reimburse the services of each and every doctor or hospital in the country. At least in theory, they can set up a network with those providers whose performance and cost-effectiveness they are most convinced of ('selective contracting').⁸⁹ If fully realised, this would add an additional layer to the concept of competition; providers would not only compete **in** the market, but also **for** the market - that is, for entry into the health care market. They therefore have to offer conditions which the payers, as agents of their clients, consider attractive. Ideally, payment would also be linked to performance, so that those providers with the best results reap the highest rewards. It must be emphasised that even in Slovakia, health funds have, to date, rarely made use of this opportunity.

Looking at the countries in the sample, it is Hungary which is most likely to develop a selective contracting system of this kind in the near future. The transition to a multiple insurance system bears the potential⁹⁰, but whether the potential is realised will depend on implementation. In the beginning, the new Hungarian health funds will struggle with the same problem as their Slovakian counterparts. Even though they have the right to contract and pay providers on the basis of their

⁸⁷ For an overview of the role of the independent sector in European hospital care, see Evans (2007)

⁸⁸ McKee & Fidler (2004) p. 87-88

⁸⁹ Pazitny et al (2004) p. 6-8

⁹⁰ Health Policy Institute (2007) p. 21-23

performance, data to evaluate this performance is rare.⁹¹ The selective contracting system requires a large amount of evidence so that purchasers can make rational decisions.⁹² If this evidence does not exist, the hands of the purchasers are tied.

At present, of all countries in the sample, the Czech Republic is the only one where a comprehensive provider catalogue with a performance ranking exists. This lack of data, however, is by no means a particular weakness of the CEE region. Quality rankings hardly exist anywhere in Western Europe either. In this category the Euro Health Consumer Index only awards high marks to the UK, Denmark and, as mentioned, the Czech Republic. The authors of the index attribute this information gap to the traditional European approach of viewing health care in a 'welfarist' rather than a 'consumerist' manner.⁹³ Gathering information about products and services, evaluating them, benchmarking and ranking their providers is typically applied to consumer goods (cars, consumer electronics), not welfare services. This is a missed opportunity. Since most of us value our health much more than cars and consumer electronics, a proper evaluation culture in health care is needed much more urgently than anywhere else.

What remains to be seen, and perhaps the Hungarian reform will provide some insights to this question, is to what extent the availability of provider quality data is a pre-condition to competition in the health sector, and to what extent the presence of competition encourages the gathering and processing of such data. Whatever the answers, a selective contracting system backed with sufficient evidence about providers means a fundamental shift of incentives.

The Czech Republic, with its multiple insurance system and the existence of basic provider ranking lists, would be best prepared to introduce selective contracting elements. Despite the favourable pre-conditions, such features are still entirely absent from the Czech System, even though their introduction is favoured by initiatives such as healthreform.cz.⁹⁴ It is often argued that health reforms must not copy other systems but reflect local needs. However, 'copying' the selective contracting system would involve the institutionalisation of tailoring to local needs. If Czech patients have totally different preferences to Slovak patients, Czech health funds would purchase totally different services to Slovak funds.

Conclusion

Health care systems are often judged by the medical outcomes they produce and/or by the degree of satisfaction patients display. In fact, these outcomes can be influenced by a multitude of other factors, completely unrelated to the quality of a health care system itself. Hence the statement; "The health system of country X is better than that of country Y, because it produces better outcomes and/or higher patient satisfaction" would only be sensible if X and Y were entirely identical countries, with their health systems being the only difference between them. Otherwise, differences in outcomes could be attributable to factors outside of the health system, among them:

- Wealth: Richer countries can spend more on health care. This is, of course, also true for any other sector. But modern, capital-intensive health care in particular is an area in which money can quickly become the limiting factor. Major medical devices and breakthrough technologies are necessarily a matter of cost. We can, of course, imagine a poor country making very efficient use of this equipment. But within the CEE region, the differences in

⁹¹ OECD Publications (2008) p. 73-74

⁹² Figueras (2004) p. 16-21; 30

⁹³ Health Consumer Powerhouse (2007) p. 38

⁹⁴ Hrobon et al (2005) p. 31-34

resource availability are enormous. The Czech Republic spends more than four times as much on health care (per citizen and per year) than Romania.⁹⁵ To use an extreme example, classifying the health systems of all formerly socialist countries by their health outcomes would mean comparing the area of the former GDR to Kazakhstan and Uzbekistan.

- **Lifestyle:** A textbook example is the comparison of the health statuses of the citizens of Nevada and Utah, two US states with similar economic power and similar medical equipments. Despite the similarities in preconditions, Utah had much better outcomes. The authors assume that the difference stems from differences in lifestyle, such as alcohol consumption and smoking. Utah (at least until a generation ago) was dominated by a Mormon culture that advocated an abstinent lifestyle.⁹⁶
- **Demographics:** As was explained earlier, older people need more medical care, and most of all, more challenging forms of care. Therefore, two nations of similar economic strength, lifestyle habits and health budgets, but with different age profiles, could still display very different health outcomes.
- **Environmental and societal influences:** There is some statistical evidence that factors like economic instability affect people's health status negatively.⁹⁷

These considerations suggest that the status of structural reform of a health system merits to be measured **in its own right**. Such a figure would not in itself measure health outcomes, but would be one of several factors contributing to these very outcomes. In other words, health outcomes and patient satisfaction would be thought of as a function of the factors mentioned above, plus an index of structural reforms in health care.⁹⁸

What do we mean by 'structural reforms'? As we have seen in this paper, despite large differences in dedication and implementation, there have been a number of reform themes common to the CEE region. Efforts have been made to:

- diversify financing and shift to economically more sustainable pillars
- facilitate innovation and catch up with the technological levels observed in the West
- make health systems more patient-centred and less provider-centred
- strengthen primary care and disburden the specialist and hospital sectors
- introduce competition between service providers to drive up standards and promote cost-competitiveness

This paper has highlighted some of the reform efforts that have been made in each of these categories. We have not attempted here to provide like for like comparisons of the details of each

⁹⁵ Measured in international Dollars to account for the differences in price levels; WHO statistics (2007)

⁹⁶ Fuchs (1974), quoted in Breyer et al (2005) p. 141-142

⁹⁷ Breyer et al (2005) p. 147-151

⁹⁸ Speaking in economic terms, there could be a model of the kind:

$$Y = C + b_1 * X_1 + b_2 * X_2 + b_3 * X_3 + b_4 * X_4 + b_5 * X_5 + e$$

where

Y would be a combination of outcome measures, such as mortality rates for selected diseases and survey data of patient satisfaction

X₁ would be an index of structural health reform

X₂ would be a measure of wealth, probably GDP per capita

X₃ would be a measure of lifestyle indicators relevant for health care, such as per capita consumption of alcohol, tobacco, fat

X₄ would be a measure of the demographic structure, probably the old-age dependency ratio

X₅ would be a measure of environmental and business cycle factors

individual health system, but rather to sketch an overview, which identifies and outlines key drivers and trends towards reform.

A useful tool to study these reforms in more depth and an area for follow-on would be an index of structural reform which would be able to translate these abstract categories into measurable units. In order to provide a deeper understanding of how much has been achieved in each category, a scoreboard would enable comparison both between the countries studied and as set against a theoretical 'ideal'.

Such a scoreboard for measuring the depth and quality of structural reforms in various areas would bring more clarity as to how much progress has been achieved and where. Furthermore, it could prove to be a valuable tool for starting a conversation around more sustainable, innovative and more patient-centred health care systems with opinion makers, both in the CEE region and beyond.

References

- Albrecht, Tit; Cesen, Marjan; Hindle, Don; Jakubowski, Elke; Kramberger, Boris; Petric, Vesna Kerstin; Premik, Marjan & Toth, Martin:** *Health care systems in transition: Slovenia*
Vol. 4 No. 3
European Observatory on Health Systems and Policies (2002)
- Breyer, Friedrich; Zweifel, Peter & Kifman, Matthias:** *Gesundheitsoekonomik;*
Springer, Berlin (2005)
- Cameron, Rob:** *Czechs grumble at doctors' fees*
BBC News; 31 December 2007
- Eekhoff, Johann; Raddatz, Guido & Zimmermann, Anne:** *Privatversicherung fuer alle: Ein Zukunftsmodell fuer das Gesundheitswesen*
Paper series *Argumente zu Marktwirtschaft und Politik* No. 92
Stiftung Marktwirtschaft/Frankfurter Institut & Otto Wolf Institut (2005)
- European Observatory on Health Systems and Policies:** *Health care systems in transition: Romania* (2000)
- European Observatory on Health Systems and Policies:** *HiT Summary: Slovenia* (2002); *HiT Summary: Romania* (2002a); *HiT Summary: Poland* (2005); *HiT Summary: Hungary* (2005a); *HiT Summary: Czech Republic* (2005b)
- Escritt, Thomas:** *Hungarian poll result sparks investment fears*
- Espin, Jaime & Rovira, Joan:** *Analyses of differences and Commonalities in pricing and reimbursement policies in Europe*
Escuela Andaluza de Salud Publica (2007)
- Evans, Tim:** *Public private realities in health care: An analysis of European hospitals*
A Healthy Market? publication series
Stockholm Network (2007)
- Federal Statistical Office of the Federal Republic of Germany** www.destatis.de
- Financial Times;** 11 March 2008
- Figueras, Josep; McKee, Martin & Lessof, Suszy:** *Overview*
Chapter 1 in Figueras, Josep; McKee, Martin; Cain, Jennifer & Lessof, Suszy (ed.): *Health systems in transition: learning from experience*
European Observatory on Health Systems and Policies (2004)
- Gerdtham, Ulf; Sogaard, Jes; Andersson, Fredrik & Jönsson, Bengt:** *An econometric analysis of health care expenditure: A cross-section study of the OECD countries*
forthcoming in *Journal of Health Economics* Vol. 11 Issue 1 (1992) p. 63-84
- Gerdtham, Ulf & Jönsson, Bengt:** *International comparisons of health expenditure: theory, data, and econometric Analysis*,
forthcoming in *Handbook of Health Economics*, Volume 1A, Elsevier (2000)
- Golinowska, Stanisława & Sowa, Agnieszka:** *Investing in health institutions in transition countries*
Studies & Analyses No. 348
Center for Social and Economic Research (2007)
- Haivas, Irina & Grigore, Bodgan:** *Pharmaceutical pricing and reimbursement in Romania*
Forthcoming in *Eurohealth* Vol. 13 No. 3; p. 24-25
LSE Health (2007)
- Health Consumer Powerhouse:** *Euro Health Consumer Index report* (2007)
- Health Policy Institute:** *Assessment of potential risks of Hungarian health insurance reform*
Health Policy Institute (2007)
- Heath, Allister:** *Flat Tax: Towards a British model*
Stockholm Network & Taxpayers' Alliance (2006)

Hrobon, Pavel; Machacek, Thomas & Julinek, Thomas: *Healthcare reform for the Czech Republic in the 21st century Europe*
Think Tank HealthReform.cz (2005)

Holub, Petr: *Czech medical fees toughest in Europe*
Actualne.cz 16 April 2008

Lichtenberg, Frank: *The Effect of Pharmaceutical Utilization and Innovation on Hospitalization and Mortality*
NBER Working Papers No. W5418 (1996)

Madrian, Brigitte & Shea, Dennis: *The Power of suggestion: Inertia in 401(k) participation and savings behaviour*
forthcoming in *The Quarterly Journal of Economics* Vol. 116 Issue 2 (2001)

McKee, Martin & Fidler, Armin: *Reforming the continuum of care*
Chapter 4 in Figueras, Josep; McKee, Martin; Cain, Jennifer & Lessof, Suszy (ed.): *Health systems in transition: learning from experience*
European Observatory on Health Systems and Policies (2004)

Mihalyi, Peter: *HMO experiment in Hungary – a unique road to health care reform*
forthcoming in *Journal of Economic Literature* 1100 & 1180 (2003)

Ministry of Health of the Federal Republic of Germany: www.die-gesundheitsreform.de

Ministry of Health of the Republic of Hungary: *Act 1 of 2008 on Health Insurance Management Funds, English translation, second (not final) version* (2008)

Newhouse, Joseph: *Medical care expenditure: A cross-national survey*
forthcoming in *The Journal of Human Resources* No. 12, p. 115-125 (1977)
Kuszewski, Krzysztof & Gericke, Christian: *Health systems in transition: Poland*
Vol. 7 No. 5
European Observatory on Health Systems and Policies (2005)

Organization for Economic Cooperation and Development (OECD): *Healthcare reform: Improving efficiency and quality of care*
Chapter 3 in *Reforms for stability and sustainable growth*, OECD (2008) p. 57-85

Organization for Economic Cooperation and Development (OECD): *Health at a glance* (2007)

Pazitny, Peter: *Reform in Slovakia activates V4 countries*
forthcoming in *Into Balance* newsletter on health policy
Health Policy Institute (2008)

Pazitny, Peter: *Referendum in Hungary represents the stop to structural reforms*
forthcoming in *Into Balance* newsletter on health policy
Health Policy Institute (2008)

Pazitny, Peter, Zajac, Rudolf & Marcincin, Anton: *Reform models: Health reform in Slovakia*
Health Policy Institute (2004)

Ringel, Jeanne; Hosek, Susan; Vollaard, Ben & Mahnovski, Sergej: *The elasticity of demand for health care: A review of the literature and its application to the military health system*, National Defense Research Institute and RAND Health (2002)
Rokosova, Martina & Hava, Petr: *Health care systems in transition: Czech Republic* (2005)
Vol 7. No. 1
European Observatory on Health Systems and Policies (2005)

Siciliani, Luigi & Hurst, Jeremy: *Explaining waiting times variations for elective surgery across OECD countries*
OECD Health Working Papers No. 7 (2003)

World Health Organization: *Statistics* (2008)