The continuum of care

A background paper prepared for USAID Conference, Washington, DC
29-31 July 2002
Ten Years of Health Systems Transition in Central and Eastern Europe and Eurasia

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

Continuum of Care — Executive summary

This paper is about how to deliver effective and equitable health care in central and eastern Europe (CEE) and the countries of the former Soviet Union (FSU). The inherited systems had many weaknesses and are especially poorly suited to the circumstances of today. The paper sets out a conceptual framework within which health care delivery takes place, stressing the fact that health care delivery involves a complex network of settings, each of with its own role to play but each connected to the others.

Responses require actions at all levels of the system, some at the level of government and some within the health care system. Those acting within the health care system do so within and across facilities, and across boundaries with non-clinical settings such as long-term care, home care and hospice care.

The paper begins by looking at the changing pressures that health systems face. These include changing patterns of health, changes in what health care can do, and changes in public expectations. All have important implications for the types of health care provided.

Policy-makers face four main issues: improving the performance of hospitals, restructuring health care facilities, the interface between primary secondary and tertiary care, and strengthening and modernizing primary care.

Effective hospital performance requires investment to ensure that staff have the appropriate skills, that the facilities are appropriately designed and equipped, and that actions, by both health professionals and managers, are informed by evidence. This will often require new training programmes and replacement of obsolete facilities.

Seeing the reconfiguration of health care delivery simply as closing hospital beds is oversimplistic. Change must take account of the presence or absence of alternative facilities and of social support systems. Many facilities are no longer required, but others that provide alternative models of care are certainly necessary.

The interface between primary care and hospitals has two aspects. One is that many patients admitted to hospital would be more appropriately managed in a different setting, and the challenge is to create appropriate settings for care. The other is that patients who could be discharged are kept long after they have ceased to receive treatment. This, too, requires alternative models of social care.

Finally, it is necessary to strengthen primary care. Under the Soviet system, primary care was the poor relation of the hospital sector. Reform must give primary care professionals new ways to steer patients to the most appropriate care setting, whether in hospital, nursing home or their own home. Where these reforms have been successful, they have enhanced the position of primary care at the centre of the different health care delivery sectors, facilitating a process of "virtual integration". Reform must also expand the range of services and functions of primary care. These include providing new or enhanced services as well as adopting services previously delivered at other levels of care.

Reform is complex, and the situation is exacerbated when (especially in the FSY) national health ministries are weak. Moreover, many of health ministries remain preoccupied with the day-to-day operation of the health cares system rather than moving to a role in which they exercise system oversight: establishing rules for providers, setting health purchasing priorities for insurers, and monitoring the quality of services.

As countries have abandoned the previous system of command and control, they now confront the need to work with a wide range of interest groups. Responsibility is not confined to health ministries; in many cases international agencies also play a part.

The call for simple solutions has little relevance for the health sector. Even advanced industrialized countries continuously struggle to find the right balance between affordability, equity and efficiency in a highly complex health care market in which powerful interest groups dominate the political economy.

The challenges faced differ within countries and between countries. Most obviously, they often face quite specific health needs. Models of care adopted should be consistent with what is affordable in the country concerned.

It is essential that the goals of health care reform are clear and that progress is closely monitored. Too often, change introduced in one part of the health care system creates incentives that are entirely incompatible with those in another part.

Governments must agree, in association with other interest groups, a clear health strategy within which health care providers can work that focuses on promoting health and not just keeping facilities open. They must ensure that the prerequisites for high-quality care are in place, such as effective regulatory systems for professionals, pharmaceuticals and technology, but also systems that will promote involvement in quality assurance activities throughout the health care system.

Introduction

This paper concerns the issues facing health policy-makers in central and eastern Europe (CEE) and the countries of the former Soviet Union (FSU) as they seek to deliver effective and equitable health care. It looks at the challenges they face in an environment of often contracting economies and erratic health budgets and the choices they must make.

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

This paper looks at how this situation should change. It is in five parts. First, it sets out a conceptual framework within which health care delivery takes place. Second, it examines what has happened in this region in the past decade of transition. Third, it looks at the evidence that should inform change. Fourth, it draws on recent experiences to understand the barriers to and opportunities for successful reform. Finally, it sets out a series of lessons learned from these experiences and recommends policy options for the region.

A conceptual framework

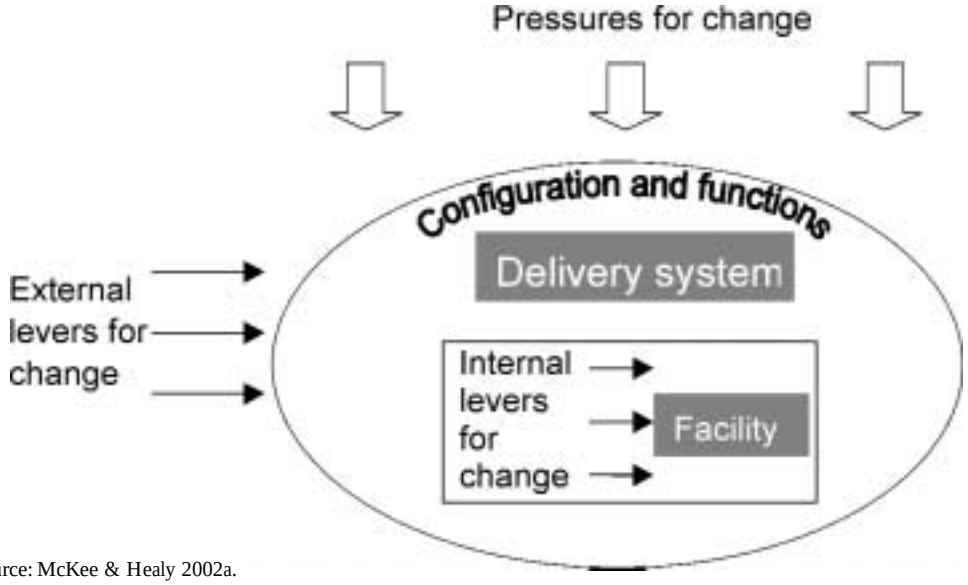
Too often, health policy has taken a reductionist approach, focusing on the individual elements of a health care system. It looks at, for example, hospital reform, primary care, public health or financing. This may be administratively tidy, especially in health ministries that have separate departments dealing with, for example, hospitals or primary care, but it ignores the reality in which health care delivery takes place — a complex network of settings, each with its own role to play but each connected to the others. This is even more important as we increasingly focus on overall health system performance, emphasizing health outcomes, user satisfaction and service quality.

1 For example, in the case that a general practitioner is remunerated on a capitation basis, the incentive is to attract as many patients as possible but to refer as much as possible to higher levels of care. In turn, if a general practitioner is paid on a fee-for-service basis there is an incentive to over-diagnose and over-treat, resulting in cost escalation. Thus a combination of capitation and fee-for-service with capping may render the most appropriate mix of incentives.

Too often, difficulties with these connections are the reason for problems in health care delivery. In many countries, general practitioners lack the skills and facilities, appropriate economic incentives1 and the professional ethos to provide treatment for many disorders, with the result that these are unnecessarily referred to hospitals. Other patients, with diseases that are treatable if detected early, are seen by specialists when it is too late to do anything. Investigation of many common conditions follows a pathway that can be clearly defined. For example, a woman with a lump in her breast that turns out to be malignant will undergo mammography, biopsy, surgery and rehabilitation, yet a failure to coordinate care pathways can make this journey seem like a pioneering exploration. People with chronic diseases also often follow an unnecessarily complex pathway on the interface between primary and secondary care, seeking the skills of each sector when needed but with little to guide them. And patients often remain in hospital for longer than necessary because of an absence of alternative, more appropriate facilities. The challenge facing health policy-makers is how to design a system that recognizes this interconnectedness. Increasingly in health systems in industrialized countries a family doctor serves not only as a primary care giver, but also as a competent manager who helps the patient negotiate ever more complex choices by interpreting diagnostic and treatment options and offering a focus of continuity.

The interconnectedness of health care delivery is a key element in the conceptual framework used in this paper (Fig. 1) (McKee & Healy 2002a). This sees health care delivery systems responding to many different pressures for change (McKee et al. 2002). They respond by changing the way they are configured and how they work. Change is brought about by actions at all levels of the system, some at the level of government and some within the health care system. Those acting within the health care system do so within and across facilities, and across boundaries with non-clinical settings such as long-term care, home care and hospice care.

Fig. 1. A conceptual framework



Source: McKee & Healy 2002a.

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

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

In some cases, it is the health care system itself that is bringing about change. Inadequate and partial treatment regimes have fuelled a dramatic increase in rates of antibiotic-resistant infection (Dornbusch et al. 1998). The most alarming example is multidrug-resistant tuberculosis, a disease that is entirely preventable but that is now reaching alarming levels in many FSU countries (Kammerling & Banatvala 2001). This has been exacerbated with the neglect of the interface between the civil and penitentiary health systems.

In addition, efforts to decentralize services have sometimes jeopardized formerly effective programmes, resulting for example in a breakdown of the vaccine cold chain in many FSU countries. This has resulted in unprotected populations and has led to outbreaks of vaccine-preventable diseases.

Another factor that is changing is public expectations. The consumer society is now firmly in place in many former communist countries, as multinational companies open ever more branches. The new IKEA store close to Moscow airport has the highest takings per square meter of floor space within the IKEA chain. The old-style hotels, with their missing bath plugs and unhelpful staff, are giving way to ones that actually make you feel welcome. People see that service can be provided in comfortable facilities and with a smile, and they are asking why this has yet to happen in many of their health care facilities. Yet in many countries in the region, the humanity with which patients are treated is still far from ideal (Platt & McKee 2000).

The nature of health care and how it is provided is also changing. Advances in technology have made it possible to treat conditions that were once fatal. Again, this has profound consequences for health care delivery. An early example is the discovery of insulin at the beginning of the 20th century. This changed type I diabetes from a rapidly fatal disorder of childhood into a condition involving lifelong treatment by specialists, including endocrinologists, ophthalmologists and vascular surgeons. More recently, many cancers have been transformed from growths that surgeons simply removed (while hoping for the best) to systemic diseases requiring integrated teams of surgeons, oncologists, radiotherapists and, if cure is impossible, palliative care specialists. It is not just technology that is changing: health care staff are also changing. They have much higher skills, and thus higher expectations of financial and other rewards. Changes in society mean that there are many other career pathways open to them, especially in the often better-paid private sector, so health services need to compete to retain staff in a way that they previously never needed to.2

An effective response by the health care system to these pressures involves actions at many levels.

Change is required at the level of the individual, as health professionals and others embrace the concept of life-long learning. It was never possible for the knowledge acquired as a medical or nursing student to equip someone to practise effectively until retirement. The increasingly rapid pace of change has reduced the "shelf life" of knowledge ever further. During the past ten years of transition in the CEE and the FSU, the need for change in the paradigm in which medical, paramedical and nursing training is based has received inadequate attention. It may require a generational change coupled with intensive investment in training facilities and curricula to produce professionals who are able to apply evidence-based principles to their professional practice in medicine, nursing or social work.

Change is also required at the level of the facility. Those who provide care must be able to influence the use of resources, while those managing resources must promote quality of care. This means investing in people, facilities and equipment to bring together the many inputs required in ways that promote effective care.

But facilities do not act in isolation. Patients with complex disorders will move between different levels of the system. If given adequate resources, with trained staff and appropriate facilities, much health care can be provided in the primary care setting. In addition to the large number of self-limiting or easily treatable conditions, such as many common infections, primary care teams are increasingly taking on the management of many chronic disorders such as asthma, hypertension and diabetes, with only occasional referrals to specialists when a particular problem arises. In other cases, such as cataract extractions, decisions about definitive treatment may be made in primary care with specialists seeing the patient for the first time in the operating theatre, thus eliminating unnecessary referrals to surgical

2 The "brain drain" of both nurses and doctors is a severe problem in the CCEE and the FSU countries. The acute nursing shortage in the European Union and the United States provides a powerful incentive for nurses from such countries to seek higher-paid jobs and better living and working environments in these areas. Similarly, many doctors, particularly those with postgraduate degrees from western universities, find attractive employment opportunities within and outside the health sector abroad.

clinics. At the same time, changing models of rehabilitation mean that those patients who do go into hospital stay for a shorter time, with their primary care team taking a greater responsibility for their recovery.

The implications for health care delivery are clear. Much closer links between primary and secondary care are needed to create a seamless interface across which the patient can move with ease. This means revisiting many of the concepts that have too long been taken for granted, such as the optimal configuration of a hospital.

The role of the hospital is changing beyond recognition (Healy & McKee 2002). Shorter stays, and in particular the growth in ambulatory surgery, mean that hospitals must use operating theatres more intensively but need fewer beds. Those patients who do stay in hospital are much sicker, so that each bed needs more staff to support it. At a more mundane level, those staff need more equipment, so the bed needs access to more electrical sockets … and so on.

Modern health care delivery thus involves much more than just individual general practices and hospitals. Rather, it involves integrated networks of different types of facility, potentially including free-standing, low-risk obstetric and non-urgent surgical facilities, minor injury centres and dedicated rehabilitation centres. This, too, has important implications. It means that there is a need for some structure that has oversight of the range of health facilities serving a defined population, and that is capable of promoting change in both the configuration of services and their ways of working.

Finally, change requires action by those who have an overview of the entire system. The concept of stewardship embraces a range of activities that are necessary if the health care system is to be able to respond effectively to changing circumstances. While the process of change will require actions by many different actors it is the state, acting as a steward for the health care system, that must ultimately be responsible for putting in place the conditions for optimal care.

Increasingly, we realize the state's responsibility for the facilitating environment in which health care exists. These include a clear health strategy, an effective system of regulation and incentives for cooperation between those who can contribute to health care. But other prerequisites outside the health sector must also be in place: a free and informed press will be a better advocate for the consumer; a functioning judicial system is required to enforce the law against abuse, fraud, corruption and malpractice; and the creation of self-help, information and advocacy groups will minimize the discrepancy in information that exists between patients and doctors.

Other sectors of government also play a role. The Ministry of Finance must provide predictable health budgets and appropriate transfers from the budget (or extrabudgetary funds) to health insurance agencies to cover for the uninsured or others such as pensioners or the unemployed. The creation of an appropriate system of financing, insurance and risk

pooling, and incentives for access, equity and quality, require close coordination between the Ministry of Finance and the Ministry of Health.

It is also important to work closely with those other ministries responsible for issues that affect the key inputs into health care, such as trained staff, pharmaceuticals and technology, and knowledge from research and development. Without concerted government action, it is likely that many of these inputs will either be under-produced or inappropriately specified to meet the needs of the health care system or, where imported, inaccessible due to tariff and non-tariff barriers. Government, acting through ministries of education, trade, science and others, has a central role in ensuring that these inputs are available to the health care system and are of appropriate quality.

Comparative overview

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

Another commonly used measure is the number of hospital beds. Again, this has very little meaning. A bed is simply an item of furniture. It contributes almost nothing to health care unless it is supported by trained staff and functional equipment and is contained within a coordinated organizational structure. Too many of the hospital beds that are recorded as existing in this region are simply beds. As hospital reimbursement during the communist period was based on the number of beds and the number of staff, it is not surprising that many hospitals established a system of "virtual" beds in order to attract higher allocations from the health budget.

Another approach is to examine policy documents. Space does not permit a comprehensive over-view of the policies adopted since transition, but a few common themes emerge.

Many countries have adopted new provider payment mechanisms. In particular, there has been considerable enthusiasm for systems based on diagnosis related groups (DRGs). Two issues arise, the first being the law of unintended consequences. In Hungary, for example, the introduction of a DRG-based system led (as expected) to a reduction in length of stay, but also to a rise in the number of admissions as hospitals compensated for the lower pay-

3 Major deviations occurred in Hungary. First, the lack of good internal and external controls as well as an underdeveloped management information systems led to the impossibility of implementing DRGs as intended. Second (and as a result of the first, perhaps) DRG "creep" and/or outright corruption led to inefficiencies and overall cost increases in the system. For example, in a number of hospitals no uncomplicated deliveries were reported – all deliveries were "complicated " owing to the higher reimbursement rate for the latter. A computer program (called Wizard) fraudulently helped to diagnose "up", leading to higher reimbursement rates.

ments they were receiving for each admission (Orosz & Hollo 2001).3 In several countries, reductions in payments for ambulatory care have led to higher rates of hospital admission. The otherwise successful introduction of DRGs in Austria resulted in patients being admitted for day surgery for procedures that had previously been carried out on an outpatient basis, as the latter was not adequately reimbursed in the new system (Hofmarcher & Rack 2001). The second issue is that these systems are often unnecessarily complex. For example, the payment scheme in the Russian Federation was vastly more detailed than that used in the United States, despite being intended for hospitals with extremely basic information systems (Sheiman 2001).

Another theme is that, with a few exceptions, there has been little reduction in hospital capacity or investment in alternative facilities. Here, superficial examination of published data can be confusing. Many of the rural hospitals in some parts of central Asia that have closed in the past decade did not have running water (Kulzhanov & Healy 1999). There may be a need for the care they provide but it is misleading to describe them as hospitals.

Many governments, however, have decentralized ownership. Privatization has largely been restricted to pharmacies, dental and some primary care pharmacies and dental clinics, with few examples of hospital privatization despite much political rhetoric. More frequently, hospitals have been transferred from central to local government. This has proceeded in tandem with the introduction of new management structures within hospitals, supported by new information systems and training programmes. Decentralization has made hospital reform more difficult. In any municipality the hospital is a major employer, and doctors and hospital mangers wield more influence over local politicians, making restructuring extremely difficult politically. In some of the FSU, reform of the hospital payment system has also had negative consequences: in Armenia, elimination of the line item budget has given hospital directors more discretion in spending but has also increased corrupt behaviour, rent seeking and misallocation of scarce resources.

Finally, many countries have sought to develop primary care, with innovative training programmes in medical schools, investment in facilities and new methods of payment. Nevertheless, experience shows that this will require a major shift in medical education, not just the retraining of general practitioners. Some countries, such as Georgia and Turkey, have experienced diminishing returns from ever-increasing investment in primary care infrastructure. Logistical challenges in remote areas and high costs of assuring adequate supplies of staff, pharmaceuticals and medical equipment stretch the capacity and budgets of health systems beyond their limits, raising important questions of sustainability. Consequently, countries with dispersed rural populations must explore alternative delivery methods for primary health care, such as mobile outreach services for the most remote populations.

While policy statements are informative, there is often a gap between the intention and the reality. A proper understanding of the changing nature of health care delivery would start with the experiences of those who use it. How has this changed? Unfortunately the evidence remains fragmentary, although there is some relevant research. This suggests, un-

surprisingly, that the fortunes of the health care system reflect those of the broader economy, with improvements in those countries that have done well economically and deterioration in those that have not. For example, there have been considerable improvements in the survival of low-birth-weight babies in the Czech Republic and the territory that was formerly the German Democratic Republic (Koupilová et al. 1998), reflecting investment in equipment and facilities. In contrast, deaths from diabetes and some other chronic disorders have increased markedly in some of the FSU, reflecting the breakdown of the previous health care system. Other research looking at the process of care again shows a mixed picture. In particular, the rapid growth in direct payments for care in some countries is a major barrier to access (Delcheva et al. 1997).4

Options for change

This section examines four issues facing policy-makers as they seek to enhance the quality of health care provided to their populations: improving hospital performance; restructuring health care delivery, the interface between primary care and secondary and tertiary care; and strengthening and modernizing primary care. In the limited space available, it has not been possible to examine these issues in detail. Those wishing to learn more should consult either the references cited or the Observatory products on which this paper is largely based.

Improving hospital performance

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

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

4 In Georgia, for example there is evidence that over 80% of health financing occurs at the point of service, either in the form of official payments, co-payments or illegal payments. This results in huge inequities and leaves the poor fully exposed in the event of a catastrophic illness.

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

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

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

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

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

One reason might be the state of the premises. Many health care facilities were obsolete 20 years ago and have since deteriorated further. They are often totally inappropriate for current models of care. Too many health care facilities do not take account of the fact that many people who use them will be disabled or partially sighted. Their configuration often physically separates departments that should be working together. Conversely, emphasis on

the hospital as an institution often acts as a barrier to alternative ways of providing care, such as freestanding facilities for non-urgent surgery or minor injury units. The financing mechanisms in many countries provide a strong disincentive to investment in renewing facilities.

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

Mechanisms to promote quality of care are the subject of an accompanying paper in this series. They will therefore not be examined in detail here, except to make one point. That is that, in many hospitals, management of resources is separate from management of quality. It is essential that the two systems be much more closely linked, so that when problems are identified the resources required to address them can be brought to bear.

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

Restructuring health care delivery

Too often, reconfiguring systems of health care delivery is seen simply as a matter of closing hospital beds. The reality is much more complex. As noted above, in the Soviet model of health care the hospital was dominant. Yet hospital care was also highly fragmented. As well as the geographical hierarchy, with the most specialized facilities in capital cities and sometimes extremely basic facilities in rural areas, hospitals were also classified according to the diseases they treated and the occupations of the patients they admitted. Another factor in Warsaw Pact countries was that some hospitals were also built for military purposes, as a strategic reserve in case of war. As a result, many medium-sized cities have inherited many different hospitals with few links between them. Compared with western Europe, hospital capacity seemed excessive. Basic indicators, such as the number of hospital beds per 1000

population, suggest levels of provision that are about 50% higher than in the west. It is, however, too simplistic just to say that this excess capacity should be closed. This argument fails to recognize the very different nature of hospitals in many countries in this region. Unlike those in western Europe, they remain the main providers of social care as well as health services. Nevertheless, this model is rarely the most humane or cost-effective means of service provision. Western European countries, which once used this model, now provide most social care through mobile community outreach services or by supporting families through cash transfers. Shortage of appropriate technology, a failure to develop alternatives in the community and lack of knowledge of alternative models of care mean that there are few other options for many patients. Closure will be essential at some stage, but it must proceed in tandem with reconfiguration and the development of more appropriate care packages.

The challenge is to develop a network of facilities that provide care in the setting that is most appropriate. This may mean radically rethinking the nature of the hospital and querying whether the traditional groupings of services are still appropriate. Most of the CEE and FSU have inherited a wasteful duplication of services. In all capitals one finds a network of "republican hospitals" — usually complex tertiary care and teaching hospitals — as well as municipal hospitals essentially providing the same services.5 A detailed exploration of these issues has been undertaken elsewhere (Edwards & McKee 2002), and only a brief consideration will be given to some of them here.

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

As hospitals admit fewer but sicker patients, the demands placed on medical and surgical units are also changing. In addition, in specialties such as gastroenterology, changing technology means that increasing numbers of patients require the combined skills of surgeons and physicians. These developments are leading some hospitals to reconfigure their inpatient facilities in terms of the severity of the condition rather than specialty.

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

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

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

The interface between primary care and secondary and tertiary care

Interfaces have two qualities. One is that they provide an opportunity to insert filters so as to limit who crosses them, for example to ensure that referrals are appropriate. Second, they should facilitate movement for those who meet the criteria to cross them, ensuring that not only the patient moves freely but also the information that is required to optimize his or her treatment (Hensher & Edwards 2002).

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

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

The outward interface, through which patients are returned to the community, can also be made to work more effectively. Once again, one challenge is to create the appropriate settings for care. These may include a variety of types of residential facility for the most frail, various types of rehabilitation facility, or the strengthening of community support to enable people to remain in their own homes. A second challenge is to place sufficient emphasis on discharge planning. Ideally, this should begin as soon as the patient is admitted to hospital, thus ensuring that all necessary arrangements are put in place for their discharge. Good communication between the hospital and the referring doctor is a crucial aspect of high-quality, cost-effective follow-up after discharge, but this is not yet well developed in most countries in this region.

5 In the case of Chisinau in the Republic of Moldova, this led to the establishment of 17 tertiary care facilities (both republican and municipal) for a total population of about 4 million. The restructuring of this network has been mired in political controversy for the past decade and remains largely unresolved.

Developing primary care

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

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

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

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

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

Key factors enabling or obstructing implementation

The previous section indicates the changes that are necessary for effective health care delivery. The next step is to implement them. This section draws on a recent study of the implementation of hospital reform in central and eastern Europe that identified seven key questions for policy-makers (Table 1) (Healy & McKee in press). That study proposed "walking through the plan", using these questions to anticipate potential problems. This approach is equally applicable to other aspects of reform of health care delivery.

Table 1. Seven questions for implementation

What is the context?
Is there agreement?
Who are the stakeholders?
Who will implement it?
How complex is the programme?
Are the resources available?
What are the likely effects (intended and unintended)?

Source: Healy & McKee (in press).

The first question is whether we understand the context. Strategies for reforming health care delivery are highly dependent on the context within which they must be implemented. One factor is the nature of the system that has been inherited, with its domination by hospitals and underdevelopment of primary care (Field 2002). Another contextual factor is the legal and financial framework that is in place. Work by development economists has highlighted the importance of issues such as property rights, banking systems and access to funds for investment. For example, an early attempt to privatize some Czech hospitals was unsuccessful because of the lack of legislation governing not-for-profit organizations (Busse et al. 2001).[6]

The political context is also important. Major reform requiring primary legislation relies on a combination of skills to design the law and to steer it successfully through the legislative process. It also benefits from a degree of political stability, something that has been rare in health ministries in this region in the past decade (Busse & Dolea 2001; Delcheva & Balabanova 2001).

In some of the FSU, the absence of a functioning legislature has meant that most major reforms have been enacted by presidential decree, a mechanisms that has the advantage of speed but the disadvantage of not being subject to legislative scrutiny or requiring stakeholder involvement. Unsurprisingly, such decrees are rarely implemented successfully.

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

While most of central Europe has recovered to (or in some cases exceeded) the economic levels of 1990, this is not yet true of most of the FSU or Balkan countries. Most of the FSU remain 40-60% below their 1990 economic performance, with profound consequences for health budgets.

Finally, in some countries it is impossible to ignore the consequences of war and civil disorder, often involving large-scale destruction of facilities, loss of skilled professionals and economic collapse (Zwi et al. 2001).

A second question is whether we have identified the key stakeholders and how their interests can be addressed. This situation is complicated in those countries that have undertaken administrative decentralization, since the process has often removed the earlier mechanisms of coordination while new ones, which are more attuned to the changed relationships, have yet to emerge. In Hungary, for example, several attempts to rationalize hospital capacity have failed in the face of opposition from hospital management and local politicians (Orosz & Hollo 2001).

Especially in the FSU, national health ministries are often surprisingly weak. Funds are raised and spent within individual regions and any central resources are under the control of the Ministry of Finance rather than the Ministry of Health. Moreover, many health ministries remain preoccupied with the day-to-day operation of the health care system rather than moving to a role in which they exercise system oversight – establishing rules for providers, setting health purchasing priorities for insurers and monitoring the quality of services.

The third question is, having identified the key stakeholders, whether we can achieve agreement among them. As countries have abandoned the previous system of command and control, they now confront the need to work with a wide range of interest groups. In many cases, old ways of working have persisted. Idealistic national plans continue to be produced with little consideration as to how they will be implemented. Responsibility is not confined to health ministries; in many cases international agencies have also played a part.

A fourth question is whether we have made the policy too complex. Complex plans are always difficult to implement, even when agreement has been reached with stakeholders (Pressman & Wildavsky 1973). Many reform programmes have been remarkably complicated, such as the new provider payment systems described earlier.

On the other hand, the call for simple solutions has little relevance for the health sector. It is evident that even advanced industrialized countries are continuously struggling to find the right balance between affordability, equity and efficiency in a highly complex health care market in which powerful interest groups dominate the political economy.

One cause of complexity is the existence of multiple lines of accountability and, with them, funding streams. In Poland, hospitals obtain recurrent revenue from insurance funds, major capital investment from central government, and maintenance from local government (Kozierkiewicz & Karski 2001). Effective change requires coordination between all of these groups. This problem is increasingly recognized in western Europe, and recent reforms in France have created regional hospital agencies, linking the planning function with the social insurance funds in structures that have successfully introduced major changes in the configuration of hospital services (McKee & Healy 2002b). A debt crisis facing municipal hospitals in Austria led to the establishment of provincial holding companies, whereby municipalities give up ownership of hospitals to state holdings. They thus created efficiencies through consolidated management and purchasing and the ability to restructure an entire network as opposed to a single facility. The introduction of an internal market in health care in the United Kingdom failed to tackle the problem of over-capacity and duplication in London. This was only addressed adequately by developing a plan that looked at the provision of all health services across London.

A fifth question is whether there are adequate resources to support implementation. In the face of the economic collapse that has befallen some of the FSU, causing them to fall within the category of Highly Indebted Poor Countries (HIPC), annual health care budgets have fallen precipitously. Yet even in these countries, most ministries cannot spend their allocated budgets because of their limited institutional capacity. In these circumstances, change becomes possible only with the support of external donors.

The final question is whether we are prepared for the unexpected. As already mentioned, reform often suffers from the law of unintended consequences. The clear implication is that it is necessary to monitor closely the consequences of reform and take effective action at an early stage.

Lessons learned

Although there are many differences between the countries in this region, their experience in restructuring health care delivery systems in the past decade offers some general lessons.

Take account of the context of reform

The first lesson is that policy-makers seeking to implement reform should take full account of the context within which they are operating. The challenges they face differ both within and between countries. Most obviously, they often face quite specific health needs, but they also face varying degrees of constraint on the resources available to them. Yet while concern about resources often focuses on money, this may not be the most important issue. Some western European countries that have tried to increase health expenditure have discovered that more money is of little use if there is nothing to buy, especially if there are insufficient staff with the appropriate training. Some reforms simply increase

transaction costs, with little impact on access or service quality. Access to large numbers of staff with inappropriate training is, of course, a quite different matter. The models of care adopted should be consistent with what is affordable. There is little point in purchasing expensive equipment if there are neither the staff nor the funds to use it.

Coordinate finance and planning

The second lesson is that effective change requires close coordination between financing and planning. Countries that have relied on market mechanisms to reduce capacity have generally been unsuccessful. Health care facilities confronted with reduced budgets have several options other than simply to close, and giving them managerial autonomy almost guarantees that they will focus on the survival of their institution rather than on reconfiguring services to meet the health needs of the population. Typically, they will allow their facilities to deteriorate, reduce the services they provide or simply run up a deficit, maintaining arrears to suppliers and expecting to be bailed out at some point in the future. In contrast, a regional planning system makes it possible to look at how different health care facilities can work together to meet health needs. The responses to growing levels of chronic disease are inevitably complex, spanning different settings and specialty groupings. They are unlikely to arise by chance.

Change will involve the closure of existing facilities, but nearly always it will also require the creation of new ones. Put simply, patients have to go somewhere; the challenge is to ensure that they go to settings that are most appropriate to their needs.

Engage with appropriate stakeholders

A third lesson is that the demise of the command and control economy requires policymakers to engage with a much broader range of stakeholders than in the past. Consumers are better informed and more vocal, the free press is a powerful institution, and lobbyists of all sorts will aggressively pursue their objectives. These diverse groups must agree on clear objectives and identify both the constraints they face and the opportunities for change. A successful policy will bring all of the relevant stakeholders on board, persuade them that alternative ways of providing care are not just possible but desirable, and ideally convince them that they have all won in some way or other. In doing so, it is his essential that their quite justifiable anxieties about job security and earnings are taken into account. It is also necessary to understand that change requires adequate resources, both financial and managerial.

Align incentives

A fourth lesson is the need to align incentives. Too often, change introduced in one part of the health care system creates incentives that are entirely incompatible with those in another part. In the Netherlands, for example, paying primary care physicians on a capitation basis and specialists on a fee-for-service basis virtually guarantees high referral rates. The

incentive system should also incorporate a means of promoting long-term investment, both to prevent further deterioration of the facilities that already exist and to make it possible to provide newer and more appropriate ones in the future.

Make stewardship a reality

Finally, governments must accept responsibility for the stewardship function. This means that they must agree, in association with other interest groups, a clear health strategy within which health care providers can work that focuses on promoting health and not just keeping facilities open. They must ensure that the prerequisites for high-quality care are in place, such as effective regulatory systems for professionals, pharmaceuticals and technology, but also systems that will promote involvement in quality assurance activities throughout the health care system. All to often, and particularly in the FSU, finance ministries tend to associate the health sector with the "unproductive" social sectors that yield no return on investment. For this reason, the social sectors receive only a residual budget allocation. It is the state's role to invest in human capital, i.e. in the people who will bring about change. These are both managers and health professionals, who need the skills to interpret and adapt evidence of effective models of care, and researchers, who must assess the health needs to be met and the applicability of different responses to them.

References

AIKEN, L.H. & SOCHALSKI, J. Hospital restructuring in North America and Europe: patient outcomes and workforce implications. Medical care, 35(10, Suppl.): S13–S25 (1997).

BUSSE, R. & DOLEA, C. Hospital reform in Romania. EuroHealth, 7(3): 57–60 (2001).

BUSSE, R. ET AL. Implementing hospital reforms in the Czech Republic. EuroHealth, 7(3): 29–31 (2001).

COAST, J. ET AL. Alternatives to hospital care: what are they and who should decide? British medical journal, 312: 162–166 (1996).

DELCHEVA, E. ET AL. Under-the-counter payments for health care: evidence from Bulgaria. Health policy, 42: 89–100 (1997).

DELCHEVA, E. & BALABANOVA, D. Hospital sector reform in Bulgaria: first steps. EuroHealth, 7(3): 42–46 (2001).

DORNBUSCH, K. ET AL. Incidence of antibiotic resistance in blood and urine isolates from hospitalized patients. Report from a European collaborative study. European Study Group on Antibiotic Resistance (ESGAR). Scandinavian journal of infectious disease, 30: 281–288 (1998).

EDWARDS, N. Planning and policy for emergency services: four fallacies, two problems and some possible solutions. Journal of the Royal Society of Medicine, 94(Suppl. 39): 50–53 (2001).

EDWARDS, N. & MCKEE, M. The future role of the hospital. Journal of health services research & policy, 7: 1–2 (2002).

FIELD, M. The Soviet legacy: past as prologue. In: McKee, M. et al., ed. Health care in central Asia. Buckingham, Open University Press, 2002.

GRINDLE, M. & HILDEBRAND, M. Building sustainable capacity in the public sector: what can be done? Public administration and development, 15: 441–463 (1995).

HEALY, J. & MCKEE, M. The role and function of hospitals. In: McKee, M. & Healy, J., ed. Hospitals in a changing Europe. Buckingham, Open University Press, 2002, pp. 59–80.

HEALY, J. & MCKEE, M. Implementing hospital reform in eastern Europe. Health policy (in press).

HEALY, J. & MCKEE, M. Improving performance within the hospital. In: McKee, M. & Healy, J., ed. Hospitals in a changing Europe. Buckingham, Open University Press, 2002, pp. 205–225.

HENSHER, M. & EDWARDS, N. The hospital and the external environment: experience in the United Kingdom. In: McKee, M. & Healy, J., ed. Hospitals in a changing Europe. Buckingham, Open University Press, 2002, pp. 83–99.

HOFMARCHER, M.M. & RACK, H. Health Care Systems in Transition: Austria. Copenhagen, European Observatory on Health Care Systems, 2001.

KAMMERLING, M. & BANATVALA, N. Tuberculosis hospitals in Russia. EuroHealth, 7(3): 82–86 (2001).

KOUPILOVÁ, I. ET AL. Neonatal mortality in the Czech Republic during the transition. Health policy, 46: 43–52 (1998).

KOZIERKIEWICZ, A. & KARSKI, J. Hospital sector reform in Poland. EuroHealth, 7(3): 32–35 (2001).

KULZHANOV, M. & HEALY, J. Health Care Systems in Transition: Kazakhstan. Copenhagen, European Observatory on Health Care Systems, 1999.

MCKEE, M. & HEALY, J., ED. Hospitals in a changing Europe. Buckingham, Open University Press, 2002a.

MCKEE, M. & HEALY, J. Réorganisation des systèmes hospitaliers: leçons tirées de l'Europe de l'Ouest. Revue médicale de l'assurance maladie, 33: 31–36 (2002b).

McKee, M. et al. Pressures for change. In: McKee, M. & Healy, J., ed. Hospitals in a changing Europe. Buckingham, Open University Press, 2002, pp. 36–58.

OROSZ, E. & HOLLO, I. Hospitals in Hungary: the story of stalled reforms. EuroHealth, 7(3): 22–25 (2001).

PLATT, L. & MCKEE, M. Observations on the management of sexually transmitted diseases in the Russian Federation: a challenge of confidentiality. International journal of STD and AIDS, 11: 563–567 (2000).

PRESSMAN, J.L. & WILDAVSKY, A. Implementation: how great expectations in Washington are dashed in Oakland. Berkeley, University of California Press, 1973.

SHEIMAN, I. New methods for paying hospitals in Russia. EuroHealth, 7(3): 79–81 (2001).

SHUM, C. ET AL. Nurse management of patients with minor illnesses in general practice: multicentre, randomised controlled trial. British medical journal, 320: 1038–1043 (2000).

WAGHORN, A. ET AL. Surgical outpatients: challenges and responses. British journal of surgery, 84: 300–307 (1997).

WANLESS, D. Securing our future: taking a long term view. London, H.M. Treasury, 2002.

Zwi, A. et al. Hospital policy in post-conflict settings: site of care and struggle. EuroHealth, 7(3): 54–57 (2001).