Chapter 9

THE CONTRIBUTION OF HEALTH SYSTEMS TO GOOD HEALTH

Dina Balabanova[1], Lesong Conteh[2] and Martin McKee[1]

1 LSHTM, 2 Imperial College London

Introduction

This chapter examines the role of the health care system in improving health outcomes in the study countries, with a focus on maternal and child health. Chapter 1 illustrated the substantial increase in the potential for health care to save lives and prevent disability since the publication of the original *Good health at low cost* report in 1985. What do these changes imply for how health systems should be organized?

The approach taken throughout this volume is based loosely on the health system building blocks set out by the WHO[1]. In each country we seek to identify:

- health interventions that can be linked to specific health gains;
- developments within the health system that supported the effective delivery of these interventions; and
- contextual factors that explain how and why these developments were possible.

The approach was comparative, employing an iterative process to identify common themes before exploring areas of convergence and divergence among countries. While the focus is primarily on the five study countries, where appropriate, we have placed countries in the context of their neighbours or countries with comparative settings. Thus, this chapter draws primarily on the case studies set out in the preceding chapters, supplemented by evidence from other published sources.

We were able to identify eight broad sets of issues that seemed to be associated with the achievement of 'good health at low' cost across the countries studied. They mapped on to the building blocks and included:

- good governance;
- effective institutions and bureaucracies;
- scaling up the health workforce;
- efforts towards fair and sustainable financing;
- financial protection;
- innovative ways of securing health system inputs; and
- building resilience in the health system.

These will be considered in turn. Box 9.1 outlines key messages for success.

Box 9.1 Characteristics of successful health systems: key messages

A health system has been found to be successful when it:

- has vision and long-term strategies;
- takes into account the constraints imposed by path dependency;
- builds consensus at societal level;
- allows flexibility and autonomy in decision-making;
- is resilient and learns from experiences, feeding back into the policy cycle;
- receives support from the broader governance and socioeconomic context in country, and is in harmony with culture and population preferences;
- achieves synergies among sectors and actors; and
- demonstrates openness to dialogue and collaboration between public and private sectors, with effective government oversight.

Good governance

Governance is a key function underlying all the other health system building blocks[1]. Sometimes linked to the concepts of stewardship[2] and leadership, it comprises the arrangements through which the system operates, including how it sets and monitors its overall goals and how the various components of the system interact to achieve them. Research on the factors underlying success and failure in many different sectors has identified the importance of good governance as underlying social development[3]. The original *Good health at low cos*t report was among the first sources that reinforced the importance of governance, with the role of the government seen as central in increasingly pluralistic health systems. There is a rich literature on the conceptual and normative aspects of governance[4,5], but here we explore how good governance, in practice, can promote better health.

Government leadership and vision

In each of the countries, we could identify the importance of *effective leadership, based on clear political vision*. This vision was typically set out in a national plan or strategy that was feasible and that set realistic goals. For example, within five years after independence from the USSR, Kyrgyzstan has developed and

endorsed a comprehensive reform programme (*Manas*) that paved the way for subsequent coherent reforms. This plan facilitated the creation of an early Sector-Wide Approach (SWAp); indeed, this remains the only example of such an approach in the former USSR[6]. This made it possible for Kyrgyzstan to develop the most comprehensive health sector development programme of any former Soviet republic, subsequently enabling it to attract extensive financial and technical support from a range of donors. In contrast, after independence in 1991, the central Asian countries that lacked a comprehensive plan ended up implementing disjointed and fragmented reforms. For example Tajikistan began to prepare a National Health Strategy in 2009, 18 years after independence, and much wealthier Kazakhstan only began to formulate a plan in 2011.

Our research reveals how this plan has retained support from successive Kyrgyz Governments, providing an agreed and consistent set of priorities and facilitating sustained donor support. Despite the presence of multiple stakeholders, government ownership was strong. Commentators in Kyrgyzstan see their country as a leader in the region, applauding its sense of national ownership and clarity of vision.

The Ethiopian Government also seized the initiative in coordinating the activities of donors and other development partners. This is exemplified by the Health Extension Programme, which is credited with enabling essential health services to reach remote communities and combating major communicable diseases[7,8] While many countries have succeeded in developing primary care programmes, the Ethiopian Government had the vision and leadership required to mobilize and coordinate the substantial resources from many different donors that were needed to deliver this ambitious programme. Our Ethiopian partners saw the Health Extension Programme as only one manifestation of a number of effective development policies in the country.

Leadership was also apparent in Ethiopia's broader engagement in international and regional partnerships. In November 2009, it was the first country in the region to sign a national agreement, a compact with development partners, based on a comprehensive Health Sector Development Programme. This set out the principles of reform, and quantified the scale and nature of the aid being sought. Although not legally binding, it clearly established the desired direction of travel. Ethiopia has aimed assiduously to increase not only the magnitude of development assistance for health in the period 2009–2015 but also its predictability, as well as to ensure that the activities of donors were coordinated with the intentions of the government. All of these activities were underpinned by a clear focus on progress towards the Millennium Development Goals (MDGs).

The Ethiopian Compact is considered to be the most comprehensive approach to donor coordination in this region, all the more remarkable as it was achieved within only one year of signing the Global International Health Partnership Compact. In some ways, it represented a continuation of the work of the Ethiopian Minister of Health, who had played an active role in the International Health Partnership (IHP) process and other initiatives, catalysing support for great donor harmonization and mobilization of resources within the region (Dr Tewodros Adhanom. Speech given at the IHP+ launch meeting. Ethiopia, 2008).

Although it is too early to know whether the IHP will influence health, the process by which it was taken forward demonstrates the ability of the Ethiopian Government to show leadership throughout the process. Here it is possible to draw parallels with Kyrgyzstan, as both countries have emerged as key regional players, attracting others eager to learn from their experiences to regional workshops and training events. As in Kyrgyzstan, there is a perceived receptive environment to regional collaboration, with support for the process from national officials.

In Tamil Nadu, the considerable achievement in maternal and neonatal health, compared with many of its neighbours in India and elsewhere in South-east Asia, has been attributed to a mix of strong political commitment to health, irrespective of the party in power, and a paradigm shift in public health policy. These factors are considered to have created a health system that is now able to deliver much more effective and equitable care. There is currently much improved access to high-quality antenatal care, emergency obstetric care and institutional delivery. Broader governance also affected health through intersectoral policies to improve literacy, reduce age at first marriage and increase public awareness of family planning and good nutrition.

All country studies demonstrated how *political elites considered improving population health a priority*. This facilitated the mobilization of financial and human resources and supported the creation of political will at local level. Thus, the importance of health was established in the 1972 Bangladesh Constitution. The right to health care was also enshrined in the constitution enacted in Kyrgyzstan following independence, echoing a universal provision in the previous Soviet Constitution, although with some user payments in practice. In Thailand, bureaucratic elites played a significant role in driving the public health agenda between 1970 and 2000. The Thai political discourse focused on the need to provide effective services for the poor as a first step in expanding them to others. This contrasted with the situation in many other low- and middle-income countries where both mandatory and voluntary insurance tended to benefit the middle classes or elites the most, as the poor lacked political voice.

The reasons why these elites prioritized health varied. In some cases, it reflected a groundswell of pressure from community organizations or donors that permeated the political classes (e.g. Bangladesh). Elsewhere, the coincidence of interest by donors and political changes created windows of opportunity (e.g. Ethiopia, Kyrgyzstan). In Kyrgyzstan, independence from the USSR in 1991, the process of state building and drastic decline in funding and deterioration of the health system facilitated the rapid introduction of radical legal and policy changes that both strengthened governance arrangements and transformed health systems.

Achieving continuity and coherence of reform plans and strategies

Continuity emerged as a key contributor to success in the countries studied. As noted above, initial blueprints often helped to clarify the direction of subsequent reforms and provided a basis for monitoring their implementation. Crucially, the content of programmes could survive changes in their nomenclature; for example, the *Manas* and *Manas Taalimi* programmes in Kyrgyzstan covered a 15-year period, with the latter building explicitly on the former. These programmes survived three major political upheavals as well as a series of economic shocks; this continuity starkly contrasts with what happened in other former Soviet countries that experienced regime change. Kyrgyzstan's long-term approach also facilitated the process of learning lessons from pilot programmes, designed to inform the broader health strategy based on consensus. Thus, when programmes were rolled out nationally, there was already considerable experience of what was needed to ensure that they worked.

Continuity is also apparent in Thailand's progress towards universal coverage from the early 1990s onwards. Growing numbers of groups, defined on the basis of their occupational or socioeconomic status, were enrolled in financial protection schemes which were then merged, so that the whole population could be covered in 2002. This was accompanied by an expansion of networks of provincial and district health facilities, which ensured access to modern health care outside the main cities. One of the few constant elements in a period of frequent changes in Thai Government was the issuance of a continuing series of statements on the importance of health. Important roles were also played by the Thai National Health Assembly (see section below on Coordination of different actors) and the Royal Family.

Continuity can also be seen in the four consecutive Ethiopian Health Sector Development Plans, each spanning a five-year period and building on the experiences of earlier plans. Thus, the current goal, which builds on the greatly increased coverage achieved during the last plan, is to improve the quality of

services now being provided. The latest proposals envisage shifting some services from regional facilities to village level.

The importance of seizing windows of opportunity and sustaining action

Some of the greatest successes took advantage of *political windows of opportunity created by national and international events*. Health system development and commitment to improving health in Bangladesh were triggered by political independence in 1971. The new 1972 Constitution created a fertile environment for the emergence of voluntary and donor-led initiatives supplementing state initiatives and motivated by the same policy goals. In Ethiopia, the creation of a new government in 1994 enabled the development of a new health policy that could benefit from increases in external funding. In Kyrgyzstan, the *Manas* process was made possible by independence from the USSR in 1991, yet other countries in the same position failed to seize the initiative. Proactive leaders entered into negotiations with donors shortly after gaining independence, creating a receptive political climate that contrasted with the situation in neighbouring countries. Health system reform was seen as a flagship programme that could attract international attention to what was perceived as success in one of the poorest of the former Soviet republics, lacking the natural resources of some of its neighbours. Subsequent political events acted as drivers for further change, with the initially popular Tulip Revolution reaffirming a commitment towards democratization and strengthening donor commitment to public sector reform.

Careful sequencing of steps in reform emerges as an important prerequisite for success. This was apparent in the experience of the original *Good health at low cost* countries after 1985, where the sequencing of reforms was important to achieve success in scaling up services. A stepwise approach allowed for experimentation, demonstrated early progress that created momentum and garnered support for less-popular initiatives[9,10].

The role of sequencing is apparent in the high level of immunization coverage achieved in Tamil Nadu. This was the product of a long-term process in which a political priority given to maternal and child health extended to behavioural and cultural change among policy-makers and the general population, rather than to particular vertical programmes. This created fertile ground for other programmes, including birth control. The relative success of these programmes in Tamil Nadu and Kerala, as compared with the rest of India, was attributed to the fact that they were embedded within political and cultural change.

Research by others has identified Kyrgyzstan, alongside the Republic of

Moldova, as the two most successful reformers in the former USSR. Both successfully transformed the financing of their health sectors, despite experiencing some of the worst economic conditions in the region[11]. The factors identified by the authors as contributing to their success support our findings. These include the importance of sequencing and the coherence of reform: establishing clear policy objectives at the outset, taking advantage of political opportunities, and developing plans that are feasible and realistic. Furthermore, governments and donors in both countries prioritized the development of capacity to monitor and evaluate the reform process, making it possible to create feedback loops and learn lessons as reforms proceeded.

Responding to population needs

Effective health system governance requires adequate responses to diverse population needs. This includes providing services that are appropriate given the burden of disease, but also responding to the expectations of the population. All countries included in the original report sought to improve access to care among underserved populations, particularly poor and rural communities, although public sector investment was not always able to match expectations, contributing to the rapid growth of the private sector to fill the gap[12,13].

The importance of responding to population needs was a recurring theme in each country, highlighting the need for *systems operating at district level that can reach rural, isolated and marginalized populations*. This was most clearly seen in Thailand, Bangladesh and Ethiopia, all of which face major challenges because of their large size and diverse population groups.

Since the early 1960s, Thailand's health plans demonstrate a commitment to extending services to underserved rural populations through the expansion of infrastructure and human resources, facilitated by economic growth and bureaucratic stability. This was underpinned by a commitment to pursue "good for the most" as opposed to "the best for a few" (see Chapter 7).

In Ethiopia, the introduction of the Health Extension Programme was an explicit attempt by the government to take much needed services to households in rural and remote areas.

Tackling corruption and ensuring accountability

We expected that measures to combat corruption would emerge strongly in our case studies, but they did not. There were, however, some examples of targeted efforts in some of the countries. For example, In Kyrgyzstan, soon after

independence, there was a large-scale investment in building accountability and transparency, linked to patient rights. Early initiatives by the World Bank and other donors to improve governance and increase the accountability of public administration, budgeting and expenditure, led to the Public Financial Management project (2002–2007) funded by Department for International Development, United Kingdom. This has been given credit for improvements within the health system and other sectors at all levels. Related initiatives included creating complaints channels, such as confidential telephone numbers where citizens could make anonymous complaints about being refused access or asked to pay in health facilities. Since 2000, over 300 complaints have been received annually, with actions taken, showing considerable public trust in the possibility for redress. Opportunities to meet senior staff working in ministries and key public offices have increased, through published contact details. In each facility, key health indicators are on display (monthly and yearly), are presented in an accessible manner and show how each facility compares with other similar ones.

The economic crisis that hit Thailand in 1997 led to concerns about rising pharmaceutical costs, with public hospitals especially at risk. Since 2004, the Thai Ministry of Health has developed and implemented an ambitious Good Governance for Medicines programme, jointly with the WHO and involving agencies beyond the health sector, such as the Food and Drug Administration of Thailand and research institutions[14]. This has strengthened accountability in the procurement of pharmaceuticals, promoting rational drug use and cost containment, and reducing inefficiencies through pooled purchasing schemes at provincial level, which lowers costs and improves quality. The Rural Doctors Society, which represents doctors working in rural areas, was active in exposing the scale of corruption in the pharmaceutical sector, as well as encouraging prosecutions. Various policy initiatives were taken nationally to increase awareness of prices and to reduce corruption and unethical practices. These included amendments to legislation, the public provision of information on prices of drugs supplied to hospitals and publishing the minutes of national policy meetings. Overall, the programme is viewed as having improved transparency and as having generated momentum for better health sector governance overall. There were spin-offs from health to other sectors, as it equipped organizations in other sectors with tools to achieve common objectives, in this case reducing the financial burden on poor people.

Effective institutions and bureaucracies

Stability of bureaucracies

The evidence gathered in the case studies suggests that *well-functioning mid-level bureaucracies that are stable over time* are important in translating strategies and plans formulated centrally into improved services and, ultimately, better health outcomes.

While individuals may come and go with political change, the existence of strong bureaucracies that retain an institutional memory of past reforms seems to be a major contributor to success. Success can be measured not only through the sustainability of specific reforms but also through underlying principles and values. While some of the countries have experienced a succession of changes in government, sometimes with significant political turmoil, the implementation of key reforms by mid-level bureaucracy has been largely unaffected, ensuring institutional memory.

This can be seen clearly in the way the reform process was sustained during a series of political crises in Thailand. Senior officials in the Thai Ministry of Public Health (MOPH) developed and implemented five-year health plans, drawing on previous plans and assessing what had already been achieved. Continuity among managers and planners ensured that principles and values underlying the reforms (equity, with increasing access to health care for all and an emphasis on rural health) were maintained in successive strategies. This was facilitated by knowledge transfer across generations of personnel and by recruiting staff with experience in rural areas to national bodies.

Kyrgyzstan has had two revolutions since independence, but the long-term reform programme remained largely unaffected. This is in contrast to countries elsewhere in the region that have also experienced major changes (such as Georgia), but which have implemented contradictory reforms that have radically changed direction. Continuity in Kyrgyzstan was facilitated by the country's early adoption of regulations that restricted the ability to hire and fire civil servants, thus reducing the politicization, and consequently turnover, of managerial and administrative staff in the public sector.

Regulatory and managerial capacity

Well-functioning health systems require strong regulatory and managerial capacity, especially where resources are scarce, and there are many examples of this in all the country case studies. In Kyrgyzstan, the government was able to rapidly

enact changes in the legal and regulatory framework, speeding up the reform process, and enabling donor investment to be absorbed and targeted effectively. For example, the parliament passed three new laws within four years, providing the legal basis for mandatory health insurance, a process that took much longer in the other countries in the region. Indeed, even now, many of these countries lack an effective legal framework for health care delivery.

A key message from Tamil Nadu is that many of the interventions that led to success could not have been possible without a competent public health management cadre at the district level (unique in India) that was given sufficient power and space to manage services. This was further enhanced by an autonomous and stable district civil service that not only applied government policies to the local context but was able to contribute innovative ideas and suggestions at the state level, some of which were later institutionalized. Enhancing managerial capacity was supported by effective use of intelligence and evidence. Tamil Nadu developed a system of surveillance and audit of maternal deaths, aggregating information on maternal deaths in both the public and the private sector[a]. Reporting of deaths became mandatory, and this change was backed up by a programme of training for health workers. Reviews of deaths and near misses are carried out by district level officials working with legal representatives and involving family members. These reviews have identified systemic gaps and faults in the existing management procedures, leading to improvements in the delivery of care at district level. For example, changes include better availability of blood and enhanced training of health workers in blood transfusion; improved communication between health professionals and managers; and increased access to referral facilities. District-led initiatives have been scaled up, for example through the introduction of state-level standard protocols. This situation was very similar to Bangladesh's emphasis on creating effective regulatory mechanisms and autonomous managers at district level.

One way of assessing management capacity is to examine the use of intelligence to inform concrete actions. This was seen clearly in Kyrgyzstan, where all sectoral strategies have had strong monitoring and evaluation components, with clear links to management and policy processes. Crucially, there is recognition of the value of integrating monitoring and evaluation systems across government, with the country's Ministry of Labour and Social Protection developing a system to identify disadvantaged groups that will be linked to health insurance data. This is far beyond what is seen in the other central Asian countries. Similarly, Thailand has invested resources in the creation of an autonomous International Health Policy Programme within the MOPH, which can monitor and conduct

[a] Based on interviews with officials in Tamil Nadu, conducted by the country team.

evaluations that respond directly to the needs of policy-makers. One effect of the close link between researchers and policy-makers is the increasing frequency of surveys (annually) in Thailand to monitor universal coverage.

Implementing policies: institutional autonomy and flexibility

It is necessary for officials to have *sufficient power and discretion to implement reforms*. Thus, in Tamil Nadu, the Medical Services Corporation, an autonomous body managing drug procurement, has been able to bypass bureaucratic procedures to introduce innovative measures that improved availability of essential drugs and promoted rational drug use. A similar degree of flexibility was seen in many district health authorities, which were able to attract support from charitable bodies to implement immunization programmes and other primary care measures, insulated from often changing state-level political priorities.

Such officials, however, should have systems in place that allow them to *learn lessons*. In Kyrgyzstan, there is a formal process of piloting reform in one region, followed by evaluation and, if successful, scaling up nationally. Donor representatives report a culture of pragmatism in deciding whether reforms work or not, and taking action where needed. There were feedback loops informing development of new policies.

The example with maternal mortality surveillance given above illustrates how district officers in Tamil Nadu were given power to develop locally appropriate solutions to problems that emerged from maternal death reviews, and successful local strategies were replicated in other districts. Some of this experience was used at the level of the state to inform evidence-based practices[15]. This contrasts with the situation in Kerala, widely admired in the 1985 *Good health at low cost* report, where decentralization of decision-making following enactment of the Panchayati Raj legislation made it more difficult for those responsible for developing and implementing health reform at local level to translate new ideas into funded programmes, as they lacked the necessary support[16].

Creation of adequate capacity at local level has not always been straightforward, however. In Ethiopia, where the Ministry of Health had almost no presence outside the capital until the 1970s, efforts have focused on building up the regional tier[17]. In Bangladesh, authorities at the district level are instrumental in implementing government formulated policies and programmes, in delivery of emergency obstetric care (some through subdistricts, *upazilas*), and in contracting NGOs to provide services to underserved groups (rural and poor urban). The existence of strong managerial capacity at this level is seen as important as

the contractual mechanisms are becoming increasingly sophisticated. However, there are significant variations in performance across districts.

Pluralism and managing engagement with the non-state sector

Since the original *Good health at low cost* report, there has been rapid growth of the private health care sector in China, Costa Rica, Kerala and Sri Lanka with considerable implications for how the health systems in these countries operate. However, the scale of change has varied. In Kerala, the private sector has become the dominant provider of care throughout the state, even for the poor; in contrast, in Costa Rica, the public sector is still the largest provider of care, although an increasing number of middle-class citizens are seeking private care, so far mostly paying out of pocket.

These changes are reflected to varying extents in the countries included in the present study, in particular in Tamil Nadu, Bangladesh and Thailand. These countries have a long history of vibrant private provision, delivering both western and traditional treatments. Some liberalization of the market can also be seen in Ethiopia and in Kyrgyzstan, albeit from a much lower initial level. The emergence of pluralistic health sectors has created a need to reconsider options for engagement with the non-state sector, ranging from coexistence to longer-term public–private partnerships. The countries studied have sought to implement a range of pragmatic solutions, with flexible models of collaboration that take account of local context.

In Tamil Nadu, 80% of outpatient treatment and 60% of inpatient care is now in the private sector. However, core maternal and child health services are still provided in the public sector. Examples of public–private engagement include joint awareness-raising campaigns and contracting out of services; for example, a government facility that does not have its own laboratory hires the services of reputable private laboratories procured through the independent Tamil Nadu Medical Services Corporation.

It should be noted that Tamil Nadu provides an example of responsiveness to public preferences. In response to popular demand, allopathic care is now provided alongside non-allopathic care within the public health system. Numerous public facilities have separate Siddha medicine wards and Ayurveda, Unani medicines are provided at primary care facilities.

Bangladesh has seen a major expansion of NGOs operating in the health sector. Indeed, it has some of the world's largest NGOs, such as the well-known BRAC, which traces its origins to the founding of an independent Bangladesh in 1972.

BRAC estimates that it reaches 110 million people by means of 64 000 village health workers. These huge NGOs have high levels of autonomy and flexibility, and have been able to play an important role in improving health, for example by preventing diarrhoeal deaths in children and by reaching out to marginalized populations living in isolated areas or suffering from stigma or lack of resources.

There are, however, some important negative consequences of the growth of the private sector. In Thailand, the rapidly expanding private sector is attracting health workers from the public sector. In Bangladesh and in Tamil Nadu, the growth in caesarean sections is much higher in the private than the public sector[18–20], and is an increasing source of concern.

Another issue is the blurring of boundaries between the public and private sectors on the demand side. Large private sectors in low-income settings are associated with high levels of private expenditure; in several of the countries, there are widespread out-of-pocket payments, both formal and informal. In Kyrgyzstan, informal payments represent over 50% of all out-of-pocket health expenditure, slightly above the average in the former Soviet countries[21], and have remained consistently high throughout the transition. In Bangladesh, out-of-pocket payments are high, but their consequences may be somewhat mitigated by social networks that can facilitate loans at community level.

Finally, another development, so far little evaluated, is the emergence of Tamil Nadu (specifically Chennai city) and Thailand as regional and even global centres for medical tourism. Analyses of the situation in South-east Asia highlight concern over risks of maldistribution and brain drain of health workers to serve such tourists rather than the local population[22].

Multisectoral focus

We found several examples of the importance of *coordinating action across sectors*, both in the original countries and the new ones. As discussed in the review of the original *Good health at low cost* countries, Costa Rica and Sri Lanka, which were able to strengthen intersectoral engagement and achieve coordinated action across public and private sectors, have fared better than China in terms of expanding access to health care.

Development and implementation of *comprehensive reform programmes* seeking to address multiple aspects of health system functioning, and providing a strategic framework for addressing broader determinants of health, provided continuity through different reform stages and the possibility to coordinate initiatives in different sectors.

Many of these multisectoral approaches aiming to promote social development have impacted on maternal and child mortality. In Bangladesh, for example, families who participate in microcredit programmes achieve better child survival[23,24]. Other approaches linked to better outcomes address female literacy, clean water and sanitation, as seen in the original countries.

It is easy to overlook the importance of basic infrastructure for health. In Bangladesh, a major expansion of road building and electricity supply has facilitated greater uptake of childhood immunization, and mobile phone networks support the work of community health workers throughout the country. In Thailand, the first modern health plan, in the 1960s, also benefited from the rapid expansion of electricity and highway construction. In Ethiopia's Poverty Eradication Strategy, health sits alongside other key developmental issues.

Coordination of different actors

The involvement of multiple actors in the policy process and their implementation was seen as beneficial in each country, consistent with evidence in the existing literature[25]. This was apparent in a number of ways. One was the *involvement of communities or their representatives in implementing effective interventions*. This went beyond simply seeking cooperation with particular programme beneficiaries, but involved working more widely with elected or informal community organizations to ensure that local health needs and patterns of utilization are reflected in service design and that communities are able to feed their views back to local and district level authorities. For example, Kyrgyzstan, uniquely in the former USSR, established village health committees staffed by volunteers who deal with a wide range of local issues, including public health, facilitating access to care and health education.

In Bangladesh, the important role played by community organizations in improving access to maternal and child care is well known, including both those whose primary focus is health and those engaged in microfinance[23]. However, they have been less successful in influencing policy at national level. This reflects a limited capacity and the few formal opportunities for lobbying at national level, the lack of politically active consumers or patient organizations, and the lack of national public debate about health care.

In Thailand, health assemblies have been convened since 1988 as fora in which to build consensus around core public health issues. These assemblies have received high-level support, especially from successive prime ministers and from Princess Mahachakri Sirindhorm. They involve 550 participants from different

government agencies, NGOs and professional organizations[26]. This is just one manifestation of Thailand's strong tradition of participatory policy-making.

True participation has, however, been limited in many places. In Bangladesh, despite the existence of formal consultative processes under government leadership, informed by evidence and involving diverse stakeholders, donors, scientists, the media and the Bangladesh Medical Association, key policy decisions are often opaque and are not actually made collaboratively.

There are many examples of *synergy between governments and donors* in policy formulation, agenda setting and implementation. In Kyrgyzstan, successive governments and ministers of health collaborated with donors in setting priorities, aligning strategies and allocating resources within the frameworks of SWAps and national health programmes. This consensus-based policy-making, joint action (especially among managerial staff) and willingness to reconcile different interests may have been crucial in achieving success. Similarly, strong government ownership combined with active engagement with donors within SWAps was seen in Ethiopia. Coordination between governments and donors in Bangladesh received momentum with the 1998 SWAp, which aggregated 120 health initiatives, dramatically reducing fragmentation and improving management.

Success in *engagement between governments and NGOs* has been mixed across the study countries. In Bangladesh, NGOs have worked successfully alongside and as an extension of government initiatives. For example, an NGO–government partnership has trained and supported household visits by health assistants and family welfare assistants; this is seen as instrumental in the success of health and family planning programmes. In Kyrgyzstan, engagement and coordination with civil society was seen as problematic due to the perceived weaknesses of civil society organizations. The relationship between the Ethiopian Government and NGOs has been chequered. While there was much government interest in fostering strong partnerships with international donors, there was much less interest in working with domestic civil society organizations, which were not consulted on some important issues. An evaluation of the International Health Partnership implementation, for example, found "government-centric focus" and lack of civil society participation in the development of Ethiopia's Country Compact[27]. This has since been disputed by the Ethiopian Minister of Health, who attributed the lack of involvement by civil society organizations in the compact development process to their limited capacity (Dr Tewodros Adhanom. Speech at the IHP+ launch meeting. Ethiopia, 2008). The civil society law "Proclamation for the Registration and Regulation of Charities and Societies" adopted in January 2009 has attracted criticism from donors and civil society for

restricting the role of foreign-funded NGOs beyond service provision and, in particular, for blocking them from foreign funding for the promotion of democratic rights, gender equality and accountability of law enforcement agencies. However, the European Union has continued to provide grants to Ethiopian civil society organizations (€1.6 million over a six-year period from 2006 to 2011) for work on governance, female empowerment and conflict resolution.

Another area of commonality among all countries was proactive *partnerships between health systems and the media* that have fostered change. This link has contributed to the dissemination of public health messages and increased awareness of entitlement to effective interventions, particularly among disadvantaged groups. The media has also played a role in influencing beliefs about health related issues; in Tamil Nadu, the media was used in campaigns to promote AIDS control and played an important role in fertility transition, specifically through promoting small family size. The Behaviour Change Communication programme in Bangladesh involved community health workers and managers working closely with educators, NGOs and local journalists, building on each others' skills to engender change. The programme is highly regarded.

In some countries, such as Thailand and Bangladesh, the media also provided a mechanism for accountability, facilitating a public forum to discuss the rationale for reform. It also created linkages among different tiers of the system, enabling local issues to be raised by advocacy organizations nationally, with the resulting high profile contributing to policy change. In these ways, the media has served as a catalyst for change.

Scaling up the health workforce

Innovative approaches to human resource generation

The innovative responses to scarce human resources emerges as a key issue in each country, typically by means of original country-specific solutions or approaches adapted from international experience.

Each country has designed and implemented a mix of traditional and innovative *strategies to overcome staff and skill shortages*. Extending access to well-trained health workers, especially in primary health care, was linked to better health outcomes in the original *Good health at low cost* report. Examples varied from the Chinese barefoot doctors to teams of health professionals, including a doctor, nurse and technician, working in remote areas of Costa Rica[10].

The case studies were also able to identify initiatives at all levels of service provision, from initial training to deployment and continuing professional development, and from community health workers to specialized medical doctors. In Thailand, expanding human resources was seen as a cornerstone of improving coverage. In Kyrgyzstan, a new Family Medicine Training Centre within the existing State Medical Institute of Retraining and Postgraduate Education has been created and there has been an expansion of capacity to train family practitioners, drawing on government and donor support.

Bangladesh made a major investment in capacity for emergency obstetric care in the public sector, with new facilities and trained staff deployed in rural areas. However, this indirectly led to a massive growth of the private sector, with providers engaged in dual practice or leaving the public sector to run their own private maternity hospitals. The percentage of live births in public facilities only increased from 6.1 to 7.1% between 2004 and 2007; however, those in private health facilities increased from 3.2% to 7.6% during the same period. Sixty eight per cent of caesarean sections (a proxy indicator of women's access to skilled care for complicated deliveries) take place in the private sector[28].

Overall, more Bangladeshi women do have access to emergency obstetric care. Nevertheless, fewer than 2% of deliveries by mothers in the poorest two quintiles are by caesarean section, indicating considerable unmet need for emergency obstetric care.

The Ethiopian Health Extension Programme is perhaps the most ambitious effort in sub-Saharan Africa to scale up the provision of essential primary health care and address geographical imbalances in the deployment of health workers between rural and urban areas. Health extension workers are community workers who are paid a salary by the government. There are two workers in each village health post and they deliver a package of essential primary care interventions. Nearly 34 000 health extension workers have been trained and sent to rural areas since the scheme began, reaching almost two thirds of the population by 2007[29,30]. The programme has achieved significant success in extending services for tuberculosis, HIV and maternal and child health as well as for building links among the different tiers of the health system[31]. The programme has also helped to increase immunization rates and prevent malaria through the distribution of insecticide-treated bednets. Nevertheless, its effect on utilization of key maternal and child services (for example, seeking treatment for diarrhoea and cough in children) has been mixed, perhaps because the services are still relatively limited in scope and quality[29].

A key issue facing all of these countries is retention of staff. The Ethiopian Health Extension Programme recruited workers from local communities and

enrolled them in the civil service, providing them with stable employment, training and career development opportunities[8]. In Thailand, successive health plans have implemented a variety of strategies to enhance retention. These include compulsory posting of medical graduates to rural areas, training of village health communicators and village health volunteers, introducing new types of public health worker, and training of public health nurses. The decision to conduct medical training in Thai is credited with making it more difficult for medical graduates to migrate, in contrast to the situation in the Philippines, for example.

In Tamil Nadu, the Multipurpose Workers Scheme has been operational since the early 1980s, supporting a new system of primary care in rural areas. Nearly 60 training schools were opened to train multipurpose workers. In Tamil Nadu, they were officially renamed as village health nurses. The nurses are based at health subcentres, each of which serves an average of 5000 people, providing home visits, antenatal and postnatal care, vaccinations and contraception. The village health nurse initiative has been scaled up rapidly, facilitating improved access to essential services. It has also strengthened the integration of primary care with the rest of the health system, building bridges in particular with maternal and child health services. At the same time, the scope of primary care has increased steadily. These measures have been linked to evidence of increased antenatal visits and institutional deliveries in rural areas.

Innovative use of health workers

While the original report included a few examples of the innovative use of health workers, this was a key theme emerging from the current study. Several countries have sought to create a mix of skills that is more appropriate for the local disease burden. This has also enabled health workers to implement vertical programmes in a flexible manner, maximizing the potential impact on access to services.

Examples include the health extension workers in Ethiopia, who deliver a package of primary care services and receive additional training to implement add-on programmes. In Kyrgyzstan, a cadre of trained general practitioners has been created and family group practices, working together with community health committees, are replacing the old polyclinics that were staffed by narrow specialists.

In Thailand and Tamil Nadu, community health workers and auxiliary staff visiting communities have been credited with a role in greater use of contraception and subsequent decreases in fertility. However, some have been more successful than others. In Bangladesh, although various types of para-professional were

recruited locally and trained for work in district and subdistrict facilities, the improved outcomes were attributed to mid-level staff, such as health assistants (serving 6000 people on average) and family welfare assistants (female workers serving 5000 people on average in rural areas). As in India, home visits by the female family welfare assistants have been important, given cultural barriers limiting movement of women outside the home in rural areas. Their contribution to increasing the uptake of the measles vaccine, especially among the poorer groups, was highlighted in the 2010 Countdown report[32]. In both Tamil Nadu and Bangladesh, the tasks of all types of community health worker have been expanded gradually, sometimes as a consequence of shifting from vertical to integrated models of care. Thus, many of the older health assistants were smallpox vaccinators or malaria control workers during the 1960s and early 1970s, later providing more comprehensive primary care and even referrals.

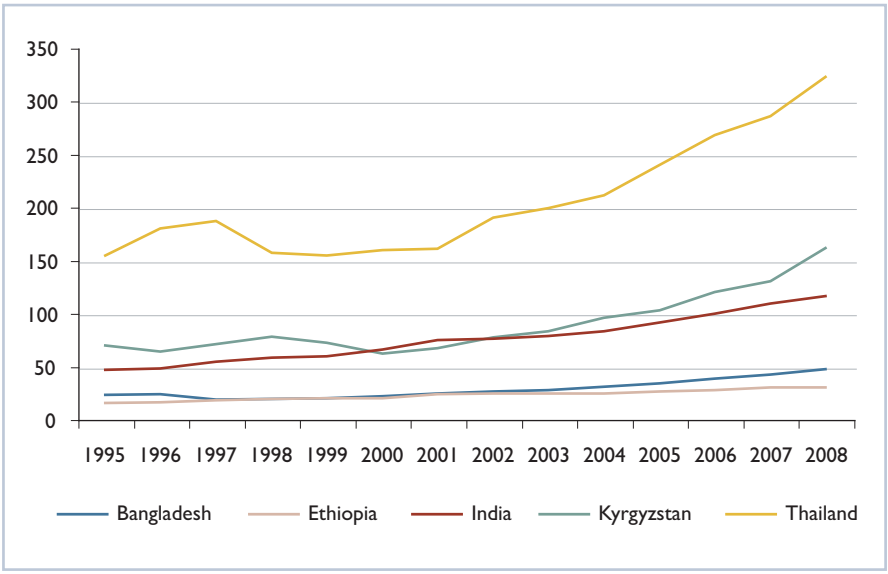
Building on earlier policies is also apparent in relation to the decision of the government of Bangladesh to invest in a one-year basic training programme for about 16 000 village health workers each year, based on the Chinese model of barefoot doctors. After the original programme ended in 1982, many of those trained continue to work as local practitioners, termed *palli chikitsok* or village doctor[33,34] or as unlicensed providers. Although not subjected to formal evaluation, they have been credited by some observers with playing a role in the reduction of childhood mortality, in part by providing access to basic medical advice and low-cost pharmaceuticals[35–37].

Despite many achievements, however, progress still needs to be made. Several of the countries face a continued threat of brain drain, which can easily and rapidly reverse earlier advances. Currently, Ethiopia and Thailand are still facing problems in achieving adequate staffing levels in rural areas. Indeed, health workers in rural areas are often predominantly women, who also bear a high domestic burden[38]. In Kyrgyzstan, many doctors have moved to Russia and neighbouring oil-rich Kazakhstan after salaries there were raised.

Health system financing

Effective and efficient systems of health financing are critical if countries are to make sustained progress towards the health MDGs[39,40]. Somewhat remarkably, financing did not emerge from the interviews undertaken within this study as a major factor in the progress towards improving health in the countries studied. However, it was possible to elucidate the role of a range of financing arrangements in underpinning other elements of the health system and contributing to improved access and quality of care. It seems likely that those interviewed simply

Figure 9.1 Total expenditure on health per capita, (Int$), 2009



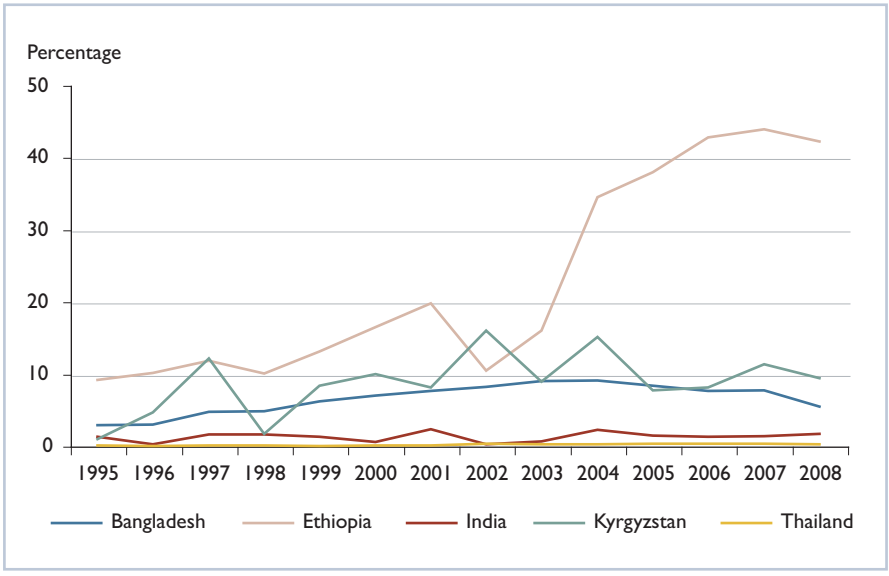
Source: Reference 41.

took the availability of finances as a given, with adequate sums necessary for the delivery of at least basic health care, while focusing on what was done within financial constraints.

Expenditure on health per capita, expressed in international dollars (2009) for each country, is shown in Figure 9.1. While all five countries have seen an increase in their expenditure on health since 1995, the rate of increase has varied. The greatest increase was in Thailand, while the smallest was in Ethiopia, although this seems surprising given the substantial and increasing donor support that Ethiopia has received in recent years (Figure 9.2).

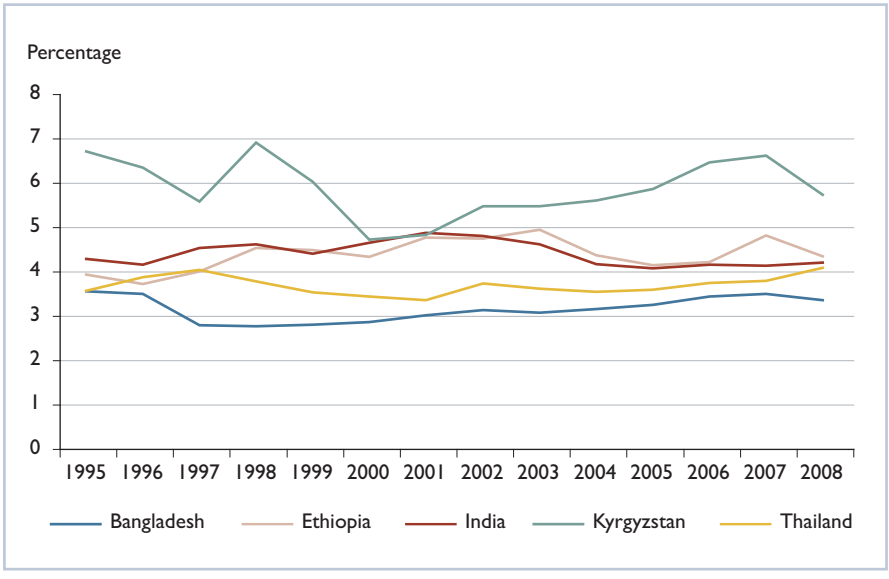
Figure 9.3 shows that total health expenditure as a percentage of GDP has remained stable over the years. Only Kyrgyzstan has had any notable fluctuation, shown by a sharp drop in total health expenditure as a percentage of GDP in the late 1990s, followed by nearly a decade of recovery to previous levels. Absolute health spending, therefore, seems to have risen as a result of GDP growth in the study countries rather than marked proportional increases of national income. In other words, the documented health gains cannot be explained as a consequence of increased share of national income for health[43].

Figure 9.2 External resources on health as percentage of total health expenditure



Source: Reference 41.

Figure 9.3 Total health expenditure as percentage of GDP



Source: Reference 41.

The next question is where do the funds come from and how sustainable are they? Here it is informative to look at Ethiopia. It has benefited greatly from increased development assistance as a consequence of geopolitical factors and greater budgetary transparency (Figure 9.3). An obvious concern is what will happen in the future. A recent study of countries worldwide found evidence that domestic funds were being crowded out by donor assistance[44]. In Ethiopia, development assistance for health rose by the equivalent of 1.2% of GDP between 2002 and 2006, while Ethiopian Government funding decreased by the equivalent of 1.4% of GDP. Given that three of the study countries receive significant contributions from donors for operating their health systems, they are vulnerable to changing global priorities.

Figure 9.4 shows the different proportions of government, out-of-pocket and other private expenditure that make up total health expenditure in all five countries. The shares of finance in the study countries have been relatively stable over time, with out-of-pocket expenditure remaining an important source. The

Figure 9.4 Changing sources of finance in the study countries

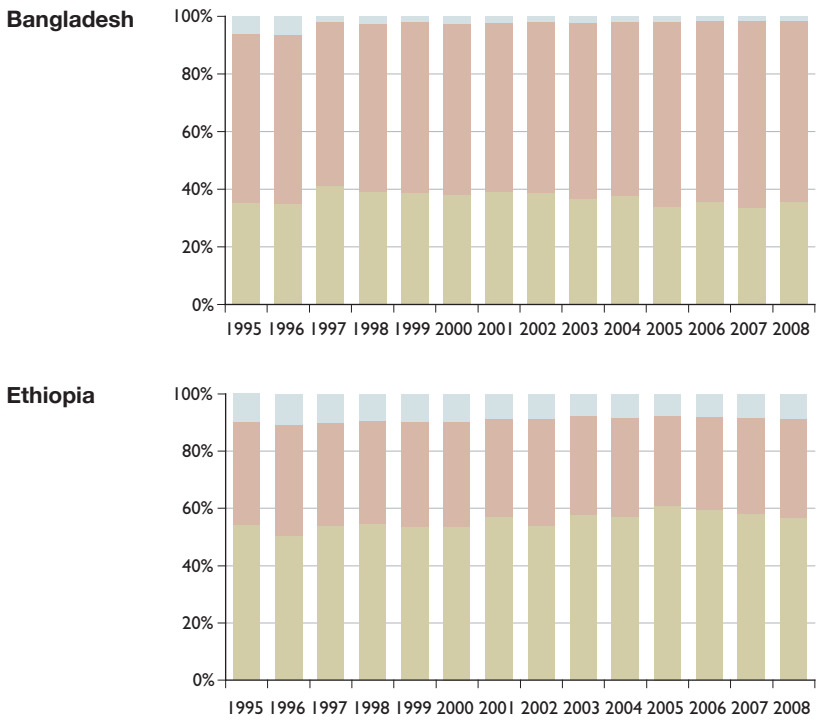
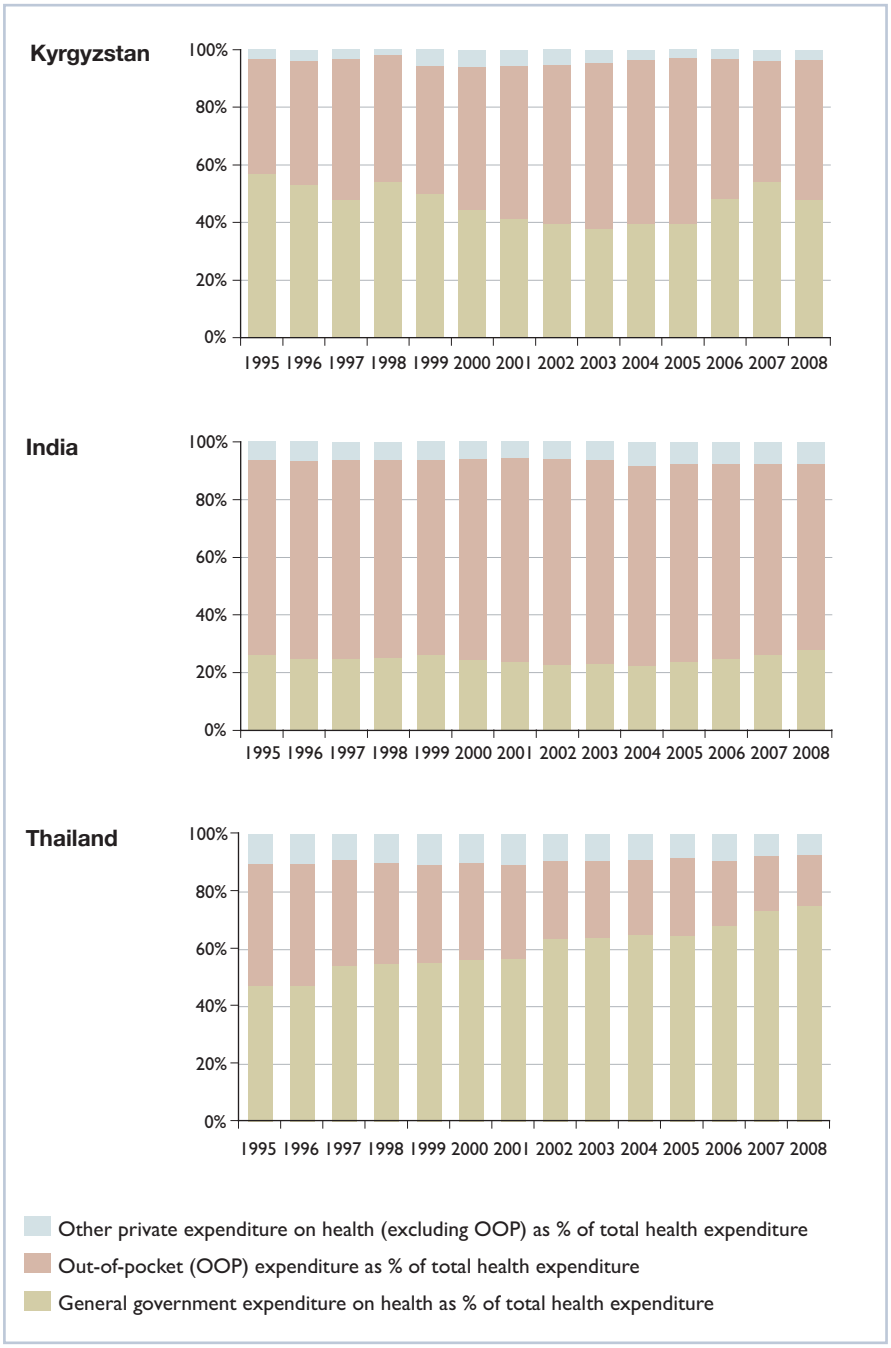


Figure 9.4 (continued)



Source: Reference 41.

exception is Thailand, where the move to universal coverage from 2001 onwards has been associated with a steadily increasing proportion of health expenditure from government sources. Similarly, Costa Rica, which has achieved major expansions in essential services coverage, consistently spent more than a fifth of total government expenditure on health between 2003 and 2007 (Chapter 8). The Kyrgyz case study reports in more detail on efforts to reduce out-of-pocket payments, especially informal ones, which were initially unsuccessful but have recently started to show positive results according to survey data (Chapter 5).

Financial protection

All countries in both the original and current study sought to improve affordability as a means of improving access to health care by all socioeconomic groups. This recognizes that the financial burden of seeking health care has detrimental effects on vulnerable households through unexpected and often catastrophic out-of-pocket payments[42,45].

In China, the central government invested effort in developing new health insurance schemes (the New Rural Cooperative Medical Care System and the expanded Urban Residents Medical Insurance scheme)[46]. In Costa Rica, health insurance coverage has steadily expanded and is now virtually universal[9]. There have been some examples of backsliding: Costa Rica and Sri Lanka considered allowing the rich to opt out of coverage even though this would reduce the sums in the risk pool (Rosero-Bixby L, personal communication (Costa Rica), 2010) and [47], but the threat to the principle of universality was recognized. In Kerala, however, the rise of the private sector has reduced access by the poor and threatened their financial protection[48].

All countries in the present study implemented measures to increase financial protection. Ethiopia has seen recent moves to develop a system of Social Health Insurance for employees in the formal sector, as well as a system of community health insurance. Both Thailand and Kyrgyzstan have achieved virtual universal coverage, but elsewhere policies have not always achieved their desired effects; some population groups remain without coverage and very substantial out-of-pocket payments persist. In Thailand, the process began long ago by providing free care for low-income groups, followed by employment-based prepayment schemes that were gradually expanded to cover smaller firms. In Kyrgyzstan, universal coverage was achieved by means of a system of mixed financing (social insurance, tax, and co-payments). Those in work pay a payroll tax, while the government pays premiums for those unable to contribute. Yet, the Kyrgyz health system is still heavily dependent on out-of-pocket spending and government

subsidies, with the added burden of informal payments, despite initiatives to tackle them.

The depth of coverage (benefits package) is important as well as the breadth of coverage. What is included in the benefit package reflects a range of considerations. In Thailand, the decision to include renal replacement therapy was designed to avert the risk of catastrophic expenditure associated with dialysis. The early adoption of antiretroviral therapy reflected the ability of the Thai Government Pharmaceutical Organization to produce a low-cost, generic combination of three key medicines.

In Kyrgyzstan, the State Guarantee Benefit Package has been revised annually to take account of available funds. Elsewhere, packages are not regularly revised even when, as in Bangladesh, there is substantial evidence of a shifting burden of disease, with noncommunicable diseases gaining increasing importance.

The degree to which financial protection is threatened by out-of-pocket payments reflects differing dynamics in different countries. Limited private sector development in Ethiopia coupled with low levels of informal payments and low level of service utilization, means that out-of-pocket expenditure is much lower than in Tamil Nadu and Bangladesh, both of which have vibrant private sectors. In Bangladesh, the three major suppliers of health care in the non-state sector are NGOs, formal and informal private sector providers and providers of traditional medicines requiring out-of-pocket payments. Kyrgyzstan provides a complex picture, with the introduction of an insurance scheme in a context of informal payments and gifts given at the point of use, a practice that was widespread across the former Soviet republics.

The problem of informal payments has been tackled in Kyrgyzstan by introducing formal co-payments for certain types of care in 2001, the first initiative of this kind in the region. A secondary goal was to enhance the managerial and financial autonomy of health facilities that could benefit from the collected revenue (Chapter 5). There is now evidence that there has been a reduction in informal payments over a six-year period, particularly for medicines, medical supplies and food. However, it was not possible to examine in detail the consequences of out-of-pocket payments on access to care. Their impact may be mitigated by families and social networks and, in some cases, people can plan for them (as with childbirth).

Despite a long-term reliance on high out-of-pocket payments in Bangladesh, large sections of the population are, in principle, exempt from payment. For example, in primary care facilities, there is no charge for people of any age for services related to HIV/AIDS, tuberculosis, malaria, acute watery diarrhoea and

related illnesses, or for assisted and emergency delivery and immunization. Poor people can also receive medication for free if they show evidence of entitlement. Although the evidence is inconclusive[49–51], it has been argued that the widespread microcredit schemes may have helped to alleviate some of the burden on the households and may have enhanced women's autonomy in decision-making and access to health care, thus contributing to health improvements of mothers and children[52].

In Thailand, along with good quality public provision, relatively low levels of out-of-pocket payment reflect the success of the universal coverage policy. In Costa Rica, a third of health expenditure in 2007 was private, mainly consisting of out-of-pocket payments for ambulatory care in the private sector; access to public health care has mostly remained free at the point of use[53].

Given increasing interest in demand-side financing – despite the inconclusive evidence supporting it[54] – only Bangladesh had employed a financial incentive programme. In Bangladesh, a maternal voucher scheme was piloted in 2007, with the aim of increasing skilled attendance at birth, coupled with better ante- and postnatal care. Although it has not been subject to a formal evaluation, it has been received enthusiastically by health providers and beneficiaries[55].

Innovative ways of securing health system inputs

Improvements in drug supply systems were identified in all countries. In Tamil Nadu, computerized systems in pharmaceutical warehouses strengthened the operations of the supply chain and improved drug management. This had a knock-on effect on the private pharmaceutical market, which no longer had a local monopoly of the supply of certain products, so prices fell.

In Bangladesh, a pioneering drug policy launched in 1978 established a flourishing pharmaceutical sector that brought affordable antibiotics and other essential medicines within the reach of providers throughout the country. Bangladesh also became a pioneer in *low cost innovations* to treat common illnesses, such as oral rehydration solution (ORS) and zinc; delivery of ORS through community workers removed diarrhoea from being the leading cause of child death. Seeking to extend health system capacity, Tamil Nadu engaged in public–private partnerships, either with autonomous NGOs implementing disease-specific programmes (for example, tuberculosis, HIV/AIDS and blindness), or with private hospitals receiving subsidies to deliver specific services for which there were shortages in the public sector (for example, cataract operations and specialist maternal care). These flexible arrangements have been instrumental in achieving significant health gains through enhanced access to essential treatments.

In central Asia, Kyrgyzstan has been a pioneer in implementing a *new system of paying providers* that explicitly sought to shape how services were delivered[56]. Its key features were amalgamation of formerly fragmented risk pools into a single fund, developing mechanisms for strategic purchasing, and increasing provider autonomy[11]. Its introduction was complicated, as some facilities were paid according to outcomes, while others were still paid according to their inherited infrastructure and number of staff. Nonetheless, the payment system allowed Kyrgyzstan to reduce its excessive and inefficient inherited hospital capacity and to link hospital budgets to performance[11], a success that has eluded its neighbours. This has allowed hospitals to release funds used for maintenance of facilities to improve patient care.

In Costa Rica and China, management contracts include performance targets linked to different types of incentive. In Yunnan's Maternal and Child Health Programme, these were linked to managerial retention and promotion, while in Costa Rica, 10% of a facility's budget was withheld against achievement of targets for treatment and preventive services[10].

In Ethiopia, contracts with the private sector to train health personnel have lead to much-needed expansion of human resource capacity, both clinical and managerial.

Efforts to reorient services towards primary care are seen in all study countries. The original *Good health at low cost* report emphasized how achievement of significant health gains involved good access to primary health care, backed up, where necessary, by referrals to specialist facilities. These trends have continued; in China, the Health VIII programme has allocated substantial funds to rehabilitate existing community health facilities (which were traditionally the cornerstone of the health system)[57].

The experiences reviewed in the new countries support this message, emphasizing the importance of *effective primary care, backed up by ease of referral services to higher tiers*, a message consistent with a wealth of experience elsewhere[58]. This process is becoming increasingly important in light of emerging demographic and economic challenges. This is still work in progress, as in Bangladesh, where the process began in the 1970s with family planning as a vertical programme with separate management, staff training and models of delivery. This only gradually changed in the 1990s, when family planning was integrated into a comprehensive national reproductive health programme (with family welfare assistants and health assistants beginning to provide broader primary maternal and child health services). These workers also support prevention as a core part of health care and not simply an optional add on. For example, Bangladesh has

managed to increase immunization coverage from about 2% in 1985 to the current level of over 75%[59], with even higher rates for some vaccines. In Thailand, immunization was a major feature of consecutive five-year plans, with specific strategies to implement it at district level according to the area and specific targets. In Tamil Nadu, access to primary health care has expanded, but institutionalizing appropriate referrals among the numerous available services is still to be achieved, which is a concern throughout India.

In situations where significant geographical and social barriers to services exist, measures to improve access to primary care have involved community-based activities or home visits in rural areas (Bangladesh and Tamil Nadu) or initiatives to deploy and retain primary health care personnel. Maintaining a basic but functioning primary care infrastructure, often supported by community efforts, has been emphasized in Tamil Nadu and Thailand.

Building resilience in the health system

One unexpected issue to emerge from our study was the importance of resilience of the health system to external shocks. Although this concept has long featured in areas such as engineering and defence, its importance is only now being recognized in the health sector, in part because of the growing awareness of the need to anticipate and prepare for extreme climatic, economic and political events[60]. Bangladesh, Thailand and Ethiopia have all experienced major natural disasters, and each has put in place systems to help to prepare for such events. Bangladesh has invested in disaster preparedness in anticipation of the regular floods and cyclones to which it is exposed, building appropriate infrastructure, raising awareness and establishing systems to coordinate emergency responses. The lessons learned have enabled it to succeed in responding to many droughts and seasonal flooding. Thailand has implemented early warning systems for tsunami. Ethiopia has improved its system for responding to droughts, although there are often limitations to preparedness – especially in extreme climatic events such as the current famine in East Africa. Inevitably there will be pressures on the health system as its own citizens and those from neighbouring countries are affected[61]. Notably, in all the countries, health services have been included in emergency planning.

The health systems in these countries have benefited from effective planning, coupled with strong leadership and institutional structures. They also have demonstrated a willingness to draw on resources beyond the health sector, as in Bangladesh where the government linked health policy with community-based insurance and microcredit programmes.

Conclusions

In this chapter, we have attempted to distil some lessons from the countries examined in the case studies, as well as from more recent progress in the countries included in the original *Good health at low cost* study. In doing so, we have faced many difficulties. Health systems are themselves complex, and they exist in a dynamic, changing environment. Although, as far as possible, we seek to describe the ways in which each of the systems in our five countries operate, drawing on as wide a range of evidence as possible, inevitably we can only begin to understand the many informal mechanisms, rules and assumptions that exist and which may be much more important than the formal systems in shaping the experiences of patients and health workers. A rare example of research that studies informal mechanisms is a study of the experiences of patients with diabetes and their health care providers in Kyrgyzstan[62]. We are also conscious of the limitations of the basic data available to us, whether financial (for example, the extent to which it captures informal transactions) or health related (for example, given the challenge of knowing whether terminology, such as the definition of a nurse, has the same meaning in different countries).

In drawing conclusions, we have been severely constrained by the scarcity of rigorous evaluations. For example, we were unable to identify any longitudinal studies whose findings could be given a causal interpretation and, even when we located observational studies, the study findings were subject to many caveats. Encouragingly, in recent years, there has been an increasing interest in undertaking impact evaluations to explicitly assess the changes (both intended and unintended) that can be attributed to a particular intervention, such as a programme or policy, which should make future policy evaluation more systematic and robust[63,64]. It is a clear indictment of policy-makers in the health sector, however, that apart from a handful of examples[65,66] they have subjected so few of their policies to proper evaluation over the past decades. Hence, we were almost entirely limited to deciding whether, all else considered, the associations between policies and outcomes were plausible. One way of doing this was to seek similar experiences in different countries, a process facilitated by the comparative case study methodology we adopted. However, this does mean that we are rarely able to attribute observed outcomes to particular policies with any degree of certainty.

Notwithstanding these limitations, the fact remains that these countries have had important success in improving the health outcomes of their populations, and have done so despite very limited financial resources. Furthermore, it is possible to discern some common features. One is the presence of good governance. This encompasses leadership and vision by government, the ability to maintain continuity despite changes elsewhere, to seize windows of opportunity,

to be responsive to population needs, and to be committed to accountability. While there is still much to do in these countries, there were many good examples of a vision being successfully translated into action.

Another is the presence of well-functioning institutions and bureaucracies that can provide some stability and institutional memory and that have adequate regulatory and managerial capacity. Given the growing complexity of the environment in which these institutions operate, they must also be flexible, with sufficient autonomy to adapt to changing circumstances, and also be able to work with the many actors inhabiting what is now often a very crowded health arena. Again, we were able to find many examples of institutions that had achieved these difficult tasks.

Health care is intrinsically labour intensive, demanding appropriately trained staff. All countries face a challenge in retention, reflecting an increasingly global market for their skills, but the problem is especially acute in remote rural areas. Nonetheless, the countries studied have developed strategies that begin to address this challenge.

Health care must be remunerated. This is always a challenge as it involves redistribution of resources from the rich and healthy to the poor and ill, a difficulty not confined to low- and middle-income countries. The five countries are at different stages on the journey towards universal coverage, with Thailand in the lead and Bangladesh and Tamil Nadu only beginning. Ethiopia has made considerable progress in a short time, while Kyrgyzstan has worked hard to find new ways to secure coverage in a very different environment from that of its past.

Our new study reinforces many of the messages that emerged from the original *Good health at low cost* report. These include the contribution of primary care, backed up by effective referral systems and the importance of strategic action supported by multiple stakeholders. However, it has also identified some new lessons, such as the importance of building resilience into the system, in recognition of the many dangers that can quickly appear. In addition, it is noteworthy that health successes were achieved despite high levels of out-of-pocket payment in several of the countries, indicating that these were perhaps more a threat to financial protection and increased poverty than to health gains. Finally, while we are unable to make concrete recommendations about what might work in particular circumstances, we do believe that this comparative analysis sets out some broad principles that are likely to be applicable elsewhere, and provides many specific ideas that are worthy of consideration by those seeking to improve the health of their populations.

REFERENCES

1. WHO. *Everybody's business: strengthening health systems to improve health outcomes. WHO's framework for action*. Geneva: World Health Organization; 2007.
2. WHO. *The world health report 2000. Health Systems: improving performance*. Geneva: World Health Organization; 2000.
3. DFID. *The politics of poverty: elites, citizens and states. Findings from ten years of DFID-funded research on governance and fragile states 2001–2010.* London: Department for International Development; 2010.
4. Brinkerhoff DW, Bossert TJ. *Health governance: concepts, experience, and programming options*. Bethesda, MD: Abt Associates; 2008.
5. Siddiqi S et al. Framework for assessing governance of the health system in developing countries: gateway to good governance. *Health Policy* 2009; 90(1):13–25.
6. Mirzoev T, Green, A, Newell J. Health SWAps and external aid: a case study from Tajikistan. *International Journal of Health Planning and Management* 2010; 25(3):270–86.
7. Datiko D, Lindtjørn, B. Health extension workers improve tuberculosis case detection and treatment success in southern Ethiopia: a community randomized trial. *PLoS One* 2009; 4(5):e5443.
8. Wakabi W. Extension workers drive Ethiopia's primary health care. *Lancet* 2008; 372(9642):880.
9. Cercone J, Pacheco Jimenez J. Costa Rica: "good practice" in expanding health care coverage – lessons from reforms in low- and middle-income countries. In: Gottret P, Schieber GJ, Waters HR, eds. *Good practices in health financing: lessons from reforms in low- and middle-income countries*. Washington DC: World Bank; 2008:183–226.
10. Clark MA. Reinforcing a public system: health sector reform in Costa Rica. In: Kaufman RR, Nelson JM, eds. *Crucial needs, weak incentives: social sector reform, democratization, and globalization in Latin America*. Baltimore, MD: Johns Hopkins University Press; 2004:189–216.
11. Kutzin J, Jakab M, Cashin C. Lessons from health financing reform in central and eastern Europe and the former Soviet Union. *Health Economics, Policy and Law* 2010; 5(2):135–47.
12. Kutty VR. Historical analysis of the development of health care facilities in Kerala State, India. *Health Policy and Planning* 2000; 15(1):103–9.

13. Rannan-Eliya RP, Sikurajapathy L. Sri Lanka: "good practice" in expanding health care coverage. In: Gottret P, Schieber GJ, Waters HR, eds. *Good practices in health financing: lessons from reforms in low- and middle-income countries*. Washington, DC: World Bank; 2008:311–54.

14. WHO. *Thailand a country case study: good governance and preventing corruption*. Geneva: World Health Organization; 2010 (http://www.who.int/features/2010/medicines_thailand/en/index.html, accessed 26 July 2011).

15. Human Rights Watch. *No tally of the anguish: accountability in maternal health care in India*. New York: Human Rights Watch; 2009.

16. Varatharajan D. Impact of fiscal crisis on public health services in Kerala. In: Prakash BA, ed. *Kerala's economic development: performance and problems in the post-liberalisation period*. Thousand Oaks, CA: Sage; 2004:335–55.

17. El-Sahartya S et al. *Improving health services in developing countries: improving health service delivery in Ethiopia. Country case study*. Washington, DC: World Bank; 2009.

18. International Institute of Population Sciences. *National family health survey-II, 1998–99*. Mumbai: International Institute of Population Sciences; 2000.

19. International Institute of Population Sciences. *National family health survey-III, 2005–06*. Mumbai: International Institute of Population Sciences; 2007.

20. NIPORT, Mitra and Associates, and Macro International. *Bangladesh demographic and health survey 2007*. Dhaka: National Institute of Population and Training, Mitra and Associates, and Macro International; 2009.

21. Balabanova D et al. Health service utilization in the former Soviet Union: evidence from eight countries. *Health Services Research* 2004; 39(6 Pt 2):1927–50.

22. Kanchanachitra C et al. Human resources for health in southeast Asia: shortages, distributional challenges, and international trade in health services. *Lancet* 2011; 377(9767):769–81.

23. Chowdhury M, Bhuiya, A. The wider impacts of BRAC poverty alleviation programme in Bangladesh. *Journal of International Development* 2004; 16(3):369–86.

24. Bhuiya A, Chowdhury M. Beneficial effects of a woman-focused development programme on child survival: evidence from rural Bangladesh. *Social Science & Medicine* 2002; 55(9):1553–60.

25. Rohde J et al. 30 years after Alma-Ata: has primary health care worked in countries? *Lancet* 2008; 372(9642):950–61.

26. Jindawatana A, Wibulpolpraset S. *The first Thai National Health Assembly*. Bangkok: Ministry of Public Health; 1988.

27. Conway S, Harmer A, Spicer N. *International Health Partnership: 2008 external review*. London: London School of Hygiene & Tropical Medicine; 2008.

28. NIPORT, Mitra and Associates, and ORC Macro. *Bangladesh Demographic and health survey 2004*. Dhaka: National Institute of Population Research and Training, Mitra and Associates and ORC Macro; 2005.

29. Admassie A, Abebaw, D, Woldemichael, A. *Impact evaluation of the Ethiopian Health Services Extension program: a non-experimental approach*. New Delhi: Global Development Network; 2009 (Working Paper No. 22).

30. UNICEF. *In rural Ethiopia, health extension workers bring care to new mothers*. New York: United Nations Children's Fund; 2010 (http://www.unicef.org/infobycountry/ethiopia_55449.html, accessed 6 September 2011).

31. Assefa Y et al. Rapid scale-up of antiretroviral treatment in Ethiopia: successes and system-wide effects. *PLoS Med* 2009; 6(4):e1000056.

32. WHO/UNICEF. *Countdown to 2015 decade report (2000–2010). Taking stock of maternal, newborn and child survival*. Geneva: World Health Organization; 2010.

33. Bangladesh Health Watch. *The state of health in Bangladesh 2007. Health workforce in Bangladesh; who constitutes the health care system?* Dhaka: James P Grant School of Public Health; 2008.

34. Perry H. *Health for all in Bangladesh: lessons in primary health care for the twenty-first century*. Dhaka: University Press; 2000.

35. Mahmood SS et al. Are 'village doctors' in Bangladesh a curse or a blessing? *BMC International Health and Human Rights* 2010; 10(18).

36. Ahmed SM et al. Socioeconomic status overrides age and gender in determining health-seeking behaviour in rural Bangladesh. *Bulletin of the World Health Organization* 2005; 83(2):109–17.

37. Bhuiya A. Village health care providers in Matlab, Bangladesh: a study of their knowledge in the management of childhood diarrhoea. *Journal of Diarrhoeal Diseases Research* 1992; 10(2):10–15.

38. George A. *Human resources for health: a gender analysis*. Geneva: Women and Gender Equity, and Health Systems, Knowledge Networks (KNs) of the WHO Commission on the Social Determinants of Health; 2007 (Review Paper).

39. Fryatt R, Mills A. Taskforce on Innovative International Financing for Health Systems: showing the way forward. *Bulletin of the World Health Organization* 2010; 88(6):476–7.

40. Fryatt R, Mills A, Nordstrom A. Financing of health systems to achieve the health Millennium Development Goals in low-income countries. *Lancet* 2010; 375(9712):419–26.

41. WHO. *National health accounts* [online database] Geneva: World Health Organization; 2010 (http://www.who.int/nha/country/en/index.html, accessed 26 July 2011).

42. Gertler P, Gruber J. Insuring consumption against illness. *American Economic Review* 2002; 92(1):51–70.

43. Rajaratnam JK et al. Neonatal, postneonatal, childhood, and under-5 mortality for 187 countries, 1970–2010: a systematic analysis of progress towards Millennium Development Goal 4. *Lancet* 2010; 375(9730):1988–2008.

44. Ooms G et al. Crowding out: are relations between international health aid and government health funding too complex to be captured in averages only? *Lancet* 2010; 375(9723):1403–5.

45. Wagstaff A. The economic consequences of health shocks: evidence from Vietnam. *Journal of Health Economics* 2007; 26(1):82–100.

46. Wagstaff A et al. China's health system and its reform: a review of recent studies. *Health Economics* 2009; 18(S2):S7–23.

47. McNay K, Keith R, Penrose A. *Bucking the trend: how Sri Lanka has achieved good health at low cost – challenges and policy lessons for the 21st century*. London: Save the Children; 2004.

48. Levesque JF et al. Affording what's free and paying for choice: comparing the cost of public and private hospitalizations in urban Kerala. *International Journal of Health Planning and Management* 2007; 22(2):159–74.

49. Mohindra K, Haddad S, Narayana D. Can microcredit help improve the health of poor women? Some findings from a cross-sectional study in Kerala, India. *International Journal for Equity in Health* 2008; 7:2.

50. Gertler P, Levine DI, Moretti E. Do microfinance programs help families insure consumption against illness? *Health Economics* 2009;18(3):257–73.

51. Hamid S, Roberts J, Mosley P. Can micro health insurance reduce poverty? Evidence from Bangladesh. *Journal of Risk and Insurance* 2011; 78(1):57–82.

52. Pitt M, Khandker S, Cartwright J. Empowering women with micro finance: evidence from Bangladesh. *Economic Development and Cultural Change* 2006; 54(4):791–831.

53. WHO. *National health accounts country data: Costa Rica* [online database]. Geneva: World Health Organization; 2011 (http://www.who.int/nha/country/cri.pdf, accessed 26 July 2011).

54. Oxman A. Can paying for results help to achieve the Millennium Development Goals? A critical review of selected evaluations of results-based financing. *Journal of Evidence-based Medicine* 2009; 2(3):184–95.

55. Koehlmoos T et al. *Rapid assessment of demand side financing experience in Bangladesh*. Dhaka: International Centre for Diarrhoeal Diseases Research, Bangladesh; 2008 (ICDDR,B Working Paper No. 170).

56. Kutzin J et al. Bismarck meets Beveridge on the Silk Road: coordinating funding sources to create a universal health financing system in Kyrgyzstan. *Bulletin of the World Health Organization* 2009; 87(7):549–54.

57. Huntingdon D et al. *Improving maternal health: lessons from the basic health services project in China*. London: Department for International Development; 2008.

58. WHO. *World health report 2008. Primary health care – now more than ever*. Geneva: World Health Organisation; 2008.

59. Ministry of Health and Family Welfare. *Expanded Programme on Immunization (Bangladesh). Bangladesh EPI coverage evaluation survey, 2009*. Dhaka: Directorate General of Health Services, Ministry of Health and Family Welfare, Bangladesh; 2009.

60. Castleden M et al. Resilience thinking in health protection. *Journal of Public Health* 2011; 33(3):378–84.

61 World Food Programme. *Horn of Africa crisis* [website]. New York: United Nations World Food Programme (http://www.wfp.org/crisis/horn-of-africa, accessed 17 August 2011).

62. Hopkinson B et al. The human perspective on health care reform: coping with diabetes in Kyrgyzstan. *International Journal of Health Planning and Management* 2004; 19(1):43–61.

63. Gertler P et al. *Impact evaluation in practice*. Washington, DC: World Bank; 2011.

64. Mills A et al. What do we mean by rigorous health-systems research? *Lancet* 2008; 372(9649):1527–9.

65. King G et al. Public policy for the poor? A randomised assessment of the Mexican universal health insurance programme. *Lancet* 2009; 373(9673):1447–54.

66. Basinga P et al. Effect on maternal and child health services in Rwanda of payment to primary health-care providers for performance: an impact evaluation. *Lancet* 2011; 377(9775):1421–8.