Chapter 5

KYRGYZSTAN: A REGIONAL LEADER IN HEALTH SYSTEM REFORM

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A doctor examines a patient at the Kirov Primary Health Care Centre in Uzgen. About 1500 people live in Uzgen – a remote region of Kyrgyzstan.

Key messages

- Kyrgyzstan is a small country facing considerable geographical, political and economic challenges that limit its ability to invest in improving health. However, it inherited some positive features of the Soviet system, which sought to achieve universal coverage and equity; independence and the transition to democracy provided an opportunity to reform the health system.
- A comprehensive reform plan to strengthen the overall health system was formulated and implemented in the early 1990s, soon after independence. The plan radically redesigned the way health care was financed and delivered, focusing on primary care and prioritizing maternal and child health and communicable and noncommunicable diseases.
- Presidential support, coupled with strong leaders in the health sector, was critical in promoting continuous, strategic and proactive political engagement throughout the reform process. However, implementation was successful because of capacity on the ground, most notably by experienced and committed administrators and technocrats.
- Good governance, a political culture of openness and efforts to promote accountability within a top-down decision-making culture were the most significant contextual factors. The policy process was inclusive and involved proactive coordination and synergies among government, donors and community representatives.
- Health system leadership was demonstrated through robust legislation and regulation that were introduced early in the change process. Policies were informed by evidence and promising innovations, the impact of the reform was regularly monitored, and the health system was redesigned as necessary.
- Major successes of the health system reform that are already improving health include revitalizing primary care, increasing coverage of essential interventions, expanding financial protection, mobilizing resources for the health sector through greater efficiency and more equitable resource allocation, and strengthening health system responsiveness.
- Achievements also point to a well-educated population, empowerment of women, solidarity and improvements in infrastructure.

Introduction

Kyrgyzstan is an example of a *Good health at low cost* country for many reasons, especially its ability to protect its population from catastrophic health expenditure. A small, land-locked country in the heart of central Asia, Kyrgyzstan has major geographical and economic disadvantages[1]. It is predominantly mountainous and 90% of the land is unsuitable for agriculture, but water resources are plentiful and its main export is hydroelectric energy (Box 5.1).

The *perestroika* that began at the late 1980s under Mikhail Gorbachev initiated a political change that led to the collapse of the USSR and independence for all republics in 1991. Two revolutions followed that led to changes of government (in 2005 – the Tulip Revolution – and in 2010), the latter accompanied by serious ethnic violence in the south, and a coalition government that was elected in December 2010[1]. The transition to independence was extremely painful for the country from an economic standpoint. Heavily dependent on Moscow's subsidies during the Soviet period, by 1995, the country's real GDP had dropped to about half its 1989 level[9]. This led to a dramatic decline in living standards, rising unemployment and increased levels of poverty that were not mitigated by social sector spending. However, these trends were later reversed, and since 2000, the country has experienced stable economic growth.

A strong economic recovery since 2007 underpinned the government's ability to implement wide-ranging reform and promote socioeconomic development. Politically, Kyrgyzstan has been known as an island of democracy in the central Asian region since independence in 1991. However, since the mid-2000s, the country has experienced considerable political turmoil and uncertainty.

Despite political and economic challenges, Kyrgyzstan has made rapid progress in reorienting its health system towards primary health care, improving access, strengthening financial protection and reducing the ubiquitous out-of-pocket spending. Under government leadership, two subsequent national health plans that spanned the years from 1996 to 2010 provided a coherent framework for radical reform and donor investment in the health sector. The reforms led to a shift from specialist-oriented care to family practice; implementation of a basic benefits package; health financing reform, including introduction of contracting and a consolidated single-payer system; and liberalization of the pharmaceutical market. Rationalization of hospital provision is also under way. In other words, there has been a transition from a hierarchical and highly centralized Soviet-style health system to one that is decentralized and more responsive to the health needs of communities[9].

Throughout years of economic turmoil, reforms have benefited from sustained

Box 5.1	**Kyrgyzstan at a glance**	
Population	5.3 million, rural population 64% (2009), with almost one quarter living in remote mountainous rural areas[2].	
Geography	Located in central Asia, 90% mountainous, limited natural resources.	
Ethnic composition	The main ethnic groups are Kyrgyz (65%), Uzbek (14%) and Russian (13%) (1999 census)[3]. Two official languages: Kyrgyz and Russian.	
Government	A republic. Regarded as an island of democracy in the period from independence from the USSR in 1991 until 2005, but considerable political turmoil since then.	
Health system	Health expenditure per capita (constant 2005 Int$)[4]: 151.7 Density of physicians, nurses and midwives per 10 000[4]: 80 Radical health reform targeted at strengthening of primary care and financial protection, but still high levels of out-of-pocket payments. High coverage of most key interventions (98% of women deliver with skilled birth attendant, and child vaccination rates over 90%)[5].	
Economic, demographic and social development	GDP per capita (constant 2005 Int$) (2009)[2]	2073
	Real GDP growth rate (2007)[6]	8.7%
	Population living on less than $1.25 a day (2007)[2]	1.9%
	Population below the national poverty line (2005)[2]	43.1%
	Gini index (2007)[2]	33
	Infant mortality rate (2006)[5]	38[a]
	Maternal mortality ratio (2006)[5]	104[b]
	Adult HIV prevalence, aged 15–49 (2009)[7]	0.3%
	Life expectancy (years) (2009)[8]	64.8 (men) 73 (women)
	Total fertility rate (2008)[8]	2.8
	Adult literacy (2009)[2]	99%
	Ratio girls to boys in education[c] (2008)[2]	101%
	Internet usage (2009)[2]	41.2%

Note: [a] Per 1000 live births; [b] Per 100 000 live births; [c] Primary and secondary education.

general government expenditure on health, although to a lesser extent than some of its wealthier neighbours. Other significant contributions were effective political leadership, coordinated working arrangements with donors, continuity of reform efforts and piloting of projects prior to their scaling up[6].

Since independence, Kyrgyzstan has demonstrated good or better health outcomes and performance of the overall health system compared to the region. Because universal coverage has been achieved, at least in theory, Kyrgyzstan can be identified as a performer in central Asia and the Caucasus. This chapter demonstrates how and why this has been possible.

Health gains

Over the past decade, Kyrgyzstan has shown steady improvement in the health of its population. The infant mortality rate has shown continued progress according to survey data, with an almost 50% reduction from 66 to 38 per 1000 live births between 1997 and 2006[5,10] (Table 5.1). Similarly, surveys indicate that the under-5 mortality rate has decreased from 72 to 44 per 1000 live births during these same years. Trends in official data are more difficult to interpret because of known under-registration in the past and the adoption of WHO live birth criteria in 2004. However, there is a process of convergence between official statistics and surveys, reflecting improved registration of infant deaths, facilitated by a change in attitudes to monitoring and evaluation. Of the children

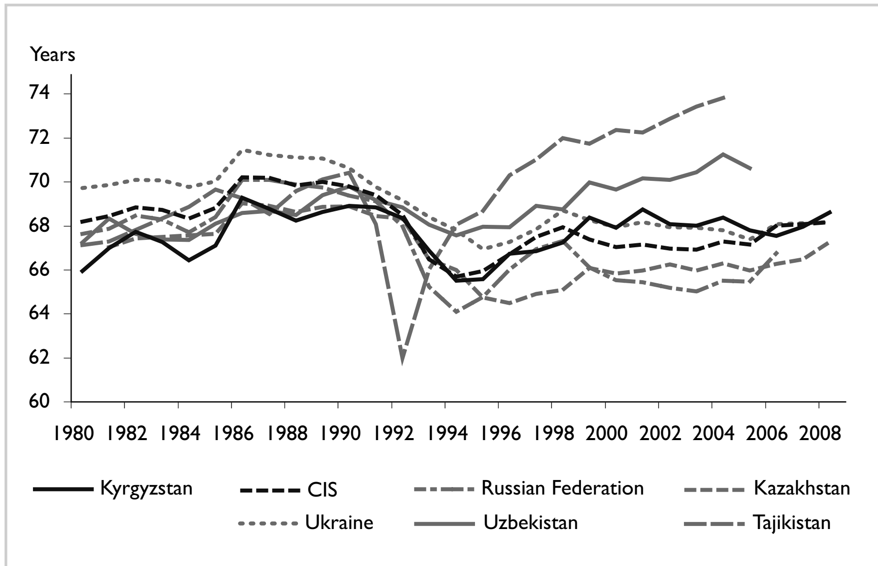
Table 5.1 Maternal, infant and child mortality by source

	1997	2000	2003	2005	2006	2007	2008	2009
Infant mortality rate per 1000 live births								
WHO/surveys	66.0[a]	61.3[b]			38.0[c]			
RMIC	28.2	22.6	20.9	29.7	29.2	29.8	27.1	25.0
Perinatal	n/a	n/a	n/a	32.4[d]	33.7[c]	33.0[d]	30.9[d]	
Neonatal	n/a	n/a	n/a	21.0[d]	22.5[c]	21.7[d]	19.2[d]	
Under-5 mortality rate per 1000 live births								
WHO/surveys		72.3[b]			44.0[c]			
RMIC	n/a	30.0	27.6	35.2	34.6	35.3	31.5	29.3
Maternal mortality ratio per 100 000 live births								
WHO/surveys	72.0[a]	110.0[b]		150.0[c]	104.0[c]			
RMIC			46.4	61.0	53.0	62.5	58.9	75.3
NSC		45.5	49.3	60.1	56.0	51.9	53.0	

Sources: Adapted from references 5, 8, 10 and 12 ([a] Reference 10; [b] Reference 8; [c] Reference 5; [d] Refernce 12).

Notes: NSC: National Statistical Committee; RMIC: Republican Medical Information Center, Ministry of Health; n/a: Not available.

Figure 5.1 Life expectancy at birth



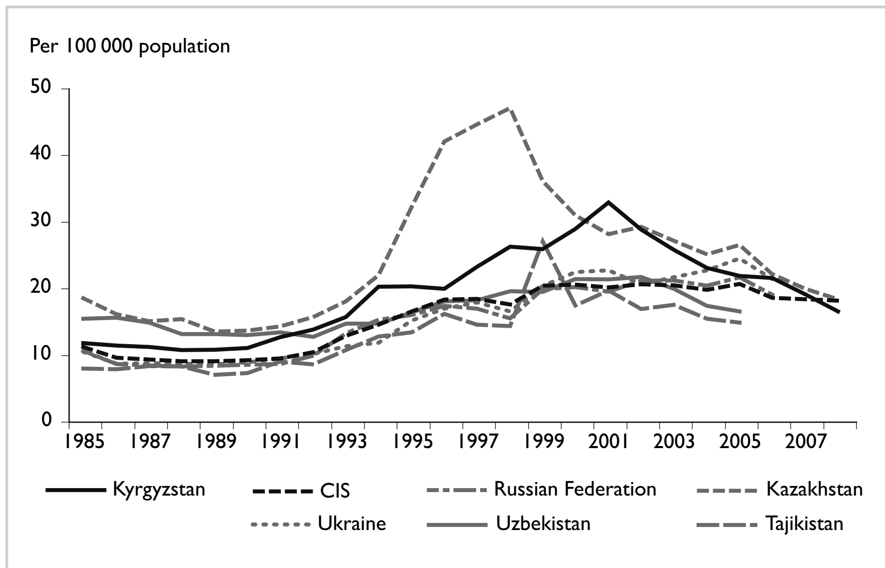
Source: Reference 8.

under one who die, 30% do so on the first day of hospital admission. More than 50% of under 5-deaths are children aged between 1 and 2 years and occur at home. These figures suggest that hospitalization for serious medical conditions is often delayed due either to poor parental awareness of symptoms requiring immediate and urgent medical attention, or to barriers to accessing care[11].

Table 5.1 also shows that the maternal mortality ratio is less encouraging. It varies from year to year, but its overall stagnation reflects the influence of economic, social and cultural factors and possibly health system deficiencies[12]. The main medical causes of maternal mortality are bleeding and hypertension (47% and 25%, respectively, in 2006)[12]. The sharp increase in maternal mortality ratio in 2009 mainly reflects the improved registration system in Kyrgyzstan. On a positive note, the total fertility rate has declined steadily from 4.1 in the 1980s to 2.8 in 2008[8], which is likely to be beneficial for sustaining improvements in maternal and child health.

Other health system indicators show positive trends over time[13]. Life expectancy is recovering since the mid-1990s when socioeconomic problems were at their worst (Figure 5.1). It remains at an average level for the Commonwealth of Independent States (CIS). Surprisingly, it is higher than countries with much

Figure 5.2 Standardized death rate, tuberculosis, all ages



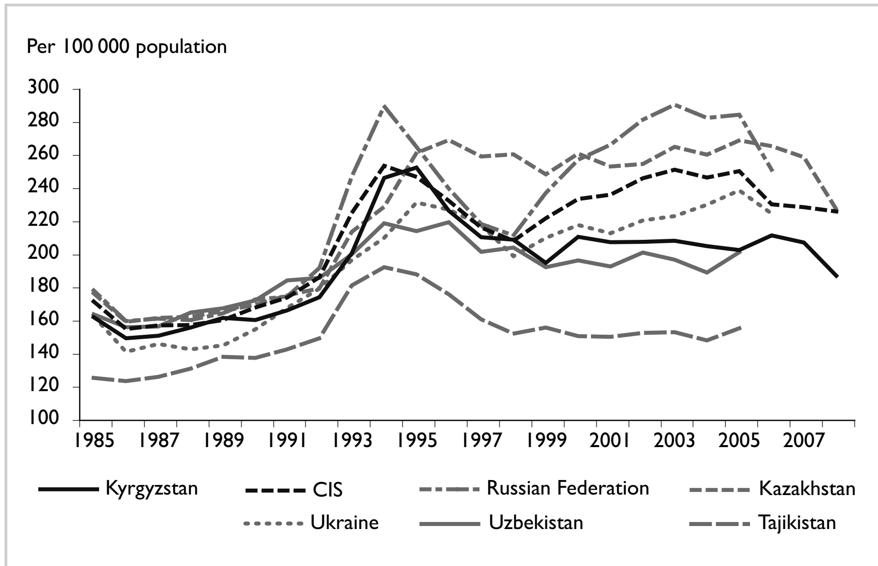
Source: Reference 8.

greater resources, such as Russia and Kazakhstan. Recent analysis has shown that adult mortality (between the ages of 20–59) has been lower than in Russia despite the fact that Kyrgyzstan is much poorer (gross national income (GNI) per capita in Kyrgyzstan was about 13 times less than in Russia in 2008) and has suffered a more severe crisis of transition[14]. This is attributed to Russia's higher burden of external and cardiovascular causes of death, particularly those strongly related to culturally determined patterns of alcohol consumption.

Mortality from tuberculosis declined from 11 per 100 000 in 2005 to 8.7 in 2009 (Figure 5.2). There have been similar declines in the central Asian region since 2000, but Kyrgyzstan has improved despite its relatively high incidence.

The burden of diseases of the circulatory system remains high in Kyrgyzstan, although the mortality rate has declined significantly since 1995 and it remains substantially below the CIS average (Figure 5.3). Although it has slightly decreased in the past 10 years, mortality from stroke in Kyrgyzstan has been consistently the highest in the region in those under 65; 30% of the population over 17 years had elevated blood pressure in 2007. Poor quality of care at the hospital level has hindered improvements in this area[15,16].

Figure 5.3 Standardized death rate, diseases of circulatory system, aged 0–64



Source: Reference 8.

Improvements in access to care

Kyrgyzstan has made significant progress on a range of intermediate health system goals, such as expanding coverage of essential care (especially in the areas of maternal and child health) and increasing financial protection and equity. These are expected to improve population health over time. Coverage by antenatal services remains high at 97% and often exceeds the WHO-recommended four visits per pregnancy. Antenatal care coverage is only slightly less in rural than in urban areas, at 95.4% and 99%, respectively[5]. A contraceptive prevalence rate of 47.8% (2005), associated with fewer unplanned pregnancies, abortions and deliveries along with longer intervals between births, has reduced the number of pregnancy-related deaths[17].

The percentage of institutional deliveries in the region remains high since this was universal practice during the Soviet period. Kyrgyzstan has maintained a stable rate of approximately 98% of births at specialized maternity hospitals over the past decade, although there are issues related to the quality of care in many regional and rural facilities. Even in villages, most women deliver in facilities and have access to qualified staff, despite high out-of-pocket payments associated

with inpatient deliveries[18], and the fact that many rural areas are geographically isolated.

Health gains since 1991 are also explained by skin-to-skin contact immediately after birth and exclusive breastfeeding, which were not considered key to child health care under the Soviet system but were prioritized after transition. It is reported that 89% of women initiate breastfeeding on the first day, and 70% within an hour after birth[10]. Rates of exclusive breastfeeding in early infancy also show improvements, although rates of exclusive breastfeeding at six months remain low[12].

During the Soviet era, vaccination of children in Kyrgyzstan was well organized and free of charge. Kyrgyzstan has managed to maintain childhood immunization coverage of 98–99% despite shortages of funds and population migration that is amongst the highest in central Asia. Support from the Global Alliance for Vaccines and Immunisation has been vital in ensuring free access to vaccinations, and in 2005, the government began co-funding the procurement of vaccines, covering 60% of all costs in 2008, which is high by regional standards. New initiatives, such as information campaigns by the Republican Immunization Centre and door-to-door visits by primary health care staff and village health committee volunteers, have helped to increase population awareness and target vulnerable groups.

As a mountainous country with limited access to fruits and vegetables, there is a high risk of iron deficiency anaemia, iodine deficiency and stunting. Kyrgyzstan has mitigated these risks by piloting innovative initiatives to reduce under nutrition. The government and donors have targeted micronutrient insufficiency through the successful promotion of breastfeeding, vitamin D supplementation for children 6–24 months and new mothers, and food fortification for children 6–24 months. These practices were included in physician training programmes and implemented by maternity ward doctors and trained village health committee volunteers. They are also promoted by the mass media.

> *…This is recognized by neighbouring countries as one of the best practices in this area. The Kyrgyz team has now been invited to share their experience …*
>
> *Donor representative*

What has Kyrgyzstan done to improve health and access to services? The role of the health system

This section briefly examines features of the former Soviet model of health care and changes in Kyrgyzstan following the collapse of the USSR. It then focuses on the two reform programmes implemented after independence and discusses their implications on health gains and on access to affordable health care.

The inheritance

From the Second World War until the mid-1980s, the Soviet Semashko model of health care focused on increasing the health system's capacity to deliver universally accessible health services funded and managed by the state and free at the point of delivery.

In order to achieve these objectives, the USSR developed a rigorously planned and supervised system with nearly universal coverage and distribution of facilities to reduce geographical barriers to primary care. Maternal and child health and control of communicable diseases were strategic priorities and had high staffing levels, even if many staff had limited training. However, serious challenges began to emerge from the 1960s, leading to a deterioration in population health and access to care[1]. These included severe underfunding of the health sector and persistence of a system that linked financing to cumbersome infrastructure, bed and staff quotas, rather than activities. This was compounded by political interference in the health system and top-down management with no incentives for quality improvement[19]. The system was overly medicalized and primary health care and prevention were of low priority in both financial allocations and medical education.

In the mid-1980s, the Soviet leadership sought to liberalize the economy and introduce market mechanisms in the public sector, such as full or partial self-financing of some health facilities and user fees for some services. However, the principle of state-guaranteed free health care was maintained as a constitutional entitlement.

It is a widely shared view among study respondents that, despite its shortcomings, this model provided affordable and accessible essential care that brought about considerable health gains during the Soviet period. Indeed, many practices from the Semashko model underpin subsequent health reforms in Kyrgyzstan, such as free access to key services, resulting in nearly universal institutional deliveries and child vaccinations. In fact, a shared institutional memory and values (fairness and equity) may have helped to retain positive health system

characteristics, such as universal coverage, after the initial system collapse following independence.

Post independence: rapid change and comprehensive reform programmes

Following independence in 1991, Kyrgyzstan was quicker than its neighbours to embrace change and develop its own health policy. The process of democratization and institution building took place as the country's economy collapsed, severely depleting resources in the health care system. The *Manas* reform programme (1996–2006) radically restructured the health system. Momentum was sustained with the *Manas Taalimi* programme (2006–2010).

These comprehensive programmes sought to address multiple determinants of health to attain health targets. Figure 5.4 shows the phases of reform and political events which impacted on health and accessibility of basic health services. Within these strategic plans there were also specific vertical programmes that were prioritized and benefited from the broader health system strengthening. For example, maternal and child health was an early reform priority and, despite radical changes in financing and delivery systems, continuity was maintained with each intervention or policy building on its predecessor. Consequently, improvements in health and access to services have already been seen (Box 5.2).

This section explores two components of the reform programmes that are considered key to implementing a wide range of successful interventions, and have positively influenced health and health indicators in the Kyrgyz Republic: (1) restructuring of delivery: strengthening primary care and hospital downsizing and (2) new financing mechanisms to improve accessibility and efficiency.

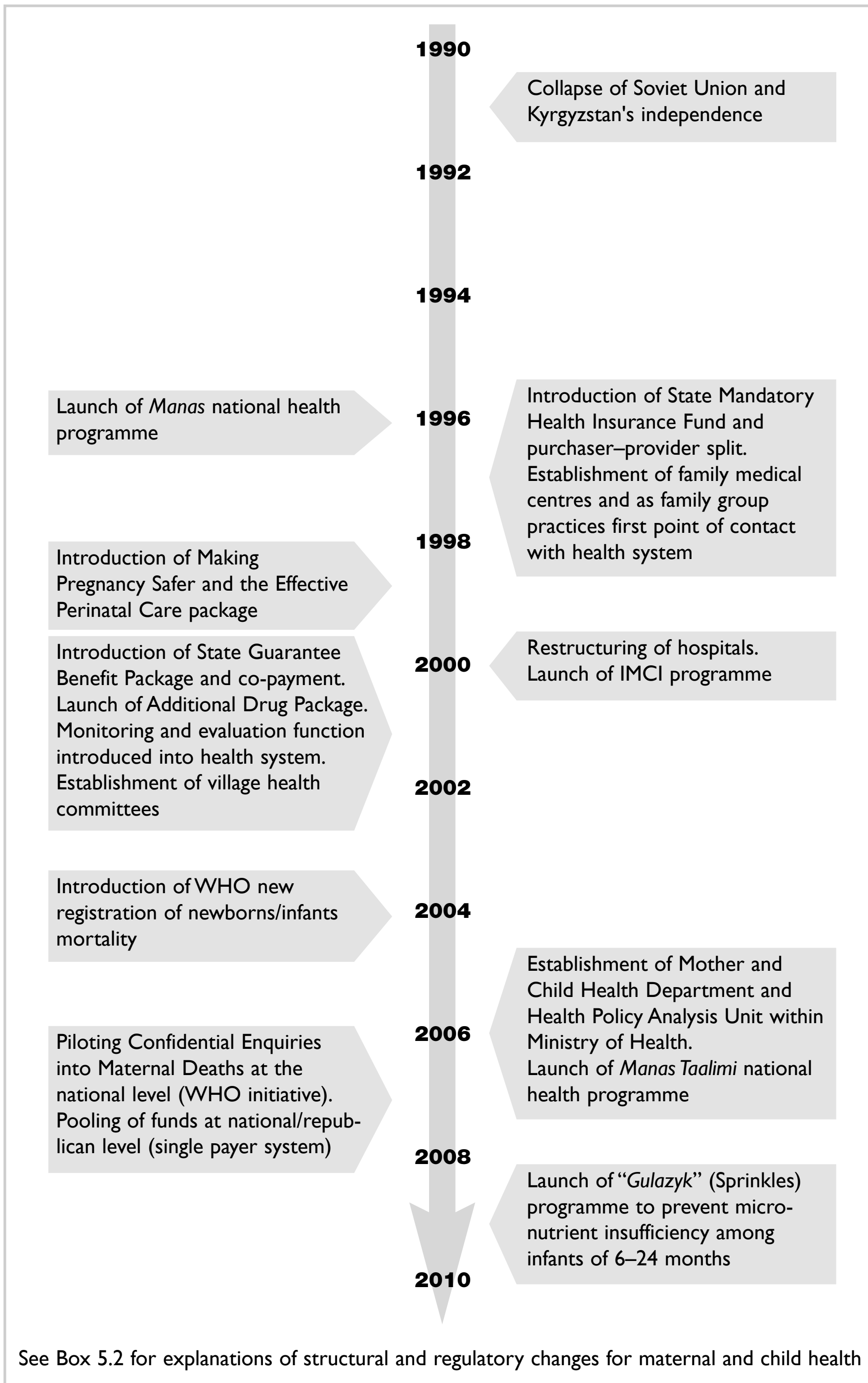
Transformation of service delivery

Post-independence, it became clear to policy-makers that, given the changing political and economic realities, urgent measures were needed to prevent a complete collapse of the health system. This led to a decisive move to implement a package of radical changes in service delivery early in the reform process, demonstrating an effort to increase access to care, including: (1) a shift from a specialist-dominated model to a comprehensive family medicine model of primary care; (2) the training of more mid-level cadres and community health workers; and (3) the rationalization of hospital infrastructure.

Development of family practice

The core principle of reform was the move from specialist-based primary health

Figure 5.4 Timeline of reforms and major political events, 1997–2009



See Box 5.2 for explanations of structural and regulatory changes for maternal and child health

Box 5.2 Structural and regulatory changes for maternal and child health

Improvements in mother and child health can be traced to practices starting during Soviet times. After independence, Kyrgyzstan started introducing internationally recognized approaches that often challenged established practice. The government mobilized support nationally and among donors and, in 2000, the Ministry of Health endorsed the IMCI to reduce infant and child mortality and improve quality of primary health care, particularly diagnosis and referrals. In 2001, WHO conducted national training on IMCI algorithms and supported trained staff. IMCI has been included in family practitioner training since 2003.

In 2006, the Ministry of Health established a dedicated National Mother and Child Health Unit and the tertiary Republican Centre for the Protection of Mother and Child Health. In 2006, the National Strategy on Reproductive Health 2006–2015 was enacted but hampered by financial constraints. The Effective Perinatal Care Package – evidence-based clinical protocols, quality monitoring and supervision – was piloted in a few oblasts in 2005 and subsequently scaled up to half of all maternity facilities. As a result, newborn mortality fell significantly in facilities and pilot sites using the package, while effective management of the third stage of labour increased from 12% to 91%[12].

Monitoring and evaluation has been increasingly emphasized. In 2004, Kyrgyzstan introduced an international definition of live births and a facility-based register of newborn, child and maternal mortality. Efforts were made to improve maternal mortality data. However, some discrepancies between official data and independent sources still exist. Since 2007, a national committee has conducted an annual review of all pregnancy- and delivery-related deaths to identify system deficiencies. This process has been well publicized in the media, in contrast to the culture of secrecy in the past.

These developments led to the endorsement of the Ministry of Health Perinatal Care Improvement Programme in Kyrgyzstan for 2008–2017 embedded within *Manas Taalimi,* with the aim of raising quality of care, improving referrals and reducing regional inequalities of access and outcomes.

The reforms have been characterized by an early prioritization of mother and child health, continual refinements and a clear set of goals that remained consistent despite political changes, and these concerted efforts have seen reductions in infant and child mortality. Valuable achievements have been safeguarded (e.g. free vaccinations, near institutional deliveries) and the health system has been flexible enough to embrace Making Pregnancy Safer and IMCI, acquire new skills and foster radical change of institutions. Change involved a rapid cycle of piloting, evaluating and scaling up new models of care and partnerships among the Ministry of Health, donors, primary care providers and communities. Current challenges include obsolete equipment and staff shortages, leading to poor quality emergency obstetric care, especially in rural areas. Poor living conditions, access to water and sanitation are common in rural areas: a major cause of pneumonia in children.

care delivered through polyclinics[a] to a family medicine model, and there was consensus that this represented the foundation for subsequent health system reforms.

The family medicine model was introduced in 1997 and extended to the whole country by 2000, providing universal coverage of essential primary care. This transformation involved training a new cadre of family practitioners on a massive scale. Family medicine curricula for postgraduate and undergraduate levels were produced with the support of development partners (such as WHO, USAID and the World Bank) and a comprehensive retraining programme for doctors and nurses is ongoing, based on international evidence-based standards. The training programme and improved access to medical information increased staff motivation.

> *…Nearly all doctors and about 95–96% nurses and* feldshers *[paramedics] were retrained in the Family Medicine Programme. All this… made a positive impact on performance.*
>
> *Ministry of Health experts*

In order to facilitate the transition to a family medicine model, all health facility managers (and many general practitioners) underwent training in the main reform strategies and regulations. This strengthened the reform process at district and local levels.

Reorienting the system towards primary health care also involved changing processes, such as referral procedures, communication channels and peer support. Previously, primary health care practitioners were subordinate to secondary care facilities and had little autonomy regarding treatment and referrals. Some of these practices have persisted. For example, family doctors often avoid treating patients needing chronic care because of lack of support from specialists, resulting in disrupted follow up and poor outcomes[20,21].

Financial incentives to improve the quality of primary health care have been introduced. The Mandatory Health Insurance Fund monitors "socially significant diseases"[b] normally treated at primary care level, such as hypertension, asthma, pneumonia and so on. Underperforming family practices are investigated

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[a] Polyclinics are urban multipurpose facilities providing primary and first-line specialist care at city and district levels, covering designated catchment areas. Under the former USSR, polyclinics were staffed by district physicians and several specialists with basic training, but often served as a referral point for hospital care and were often bypassed.

[b] Diseases accounting for the highest rates of mortality, morbidity and disability.

and remedial measures, either through additional support or fines, are taken. Responsiveness (measured through patient surveys) has improved, with patients consistently providing high scores for various quality indicators in most family practices[6,18].

While recognizing the positive effects of large-scale change, health worker retention is perceived as a major threat to efforts to improve health. Before independence, the Ministry of Health assigned medical graduates to compulsory service in rural areas for five years, but, according to many respondents, after the transition, financial and non-financial incentives to attract and retain personnel in remote areas have failed. Remuneration of health workers has remained low by national standards; a general practitioner's salary is the equivalent of US$ 80 a month, below the minimum monthly consumption basket per person, forcing many health professionals to leave the health system or look for additional sources of income[22]. While planned reductions in health care workers through early retirement and reallocation created savings in some areas, currently, shortages and uneven distribution of staff are visible.

The health workforce is getting older and only 20% to 30% of all graduates are employed in rural areas, with many migrating to urban areas or abroad. The shortage of personnel in rural primary health care facilities has increased the workload for remaining staff, undermining their retention. In addition, wealthier neighbouring countries, such as Russia and Kazakhstan, seek to attract highly trained doctors and nurses through better salaries and more attractive benefit packages and working conditions. Migration is facilitated by the widespread use of the Russian language. The relocation of staff from rural to urban areas in search of better work conditions has exacerbated the shortages in rural areas.

> *…We have spent a lot of World Bank money – about US$ 3.5 million – to retrain former internists and paediatricians to become family doctors at family group practices (FGPs). But more than one thousand of them went abroad. We have now 56 FGPs without any doctors and in 158 FGPs we have just one doctor instead of three or four, serving up to 12 000 people instead of 1500 as planned. This affects accessibility and quality. The fact that these people are hired in Russia, and given a residence permit and housing, demonstrates that they are quite well-trained and experienced.*
>
> *Ministry of Health representative*

The respondents demonstrated a widely shared belief that developing a well-integrated family practice is complex and will take time. Training the new cadre is important but has to be accompanied by better infrastructure and laboratory

diagnostic capacity at primary health care facilities, especially in rural areas, to reduce the bypassing of first-line facilities. Reorienting the system towards comprehensive primary health care has unintentionally increased the workload of family doctors, with limited capacity to support them, while reducing the workload of district specialists. Reporting on vertical programmes has also increased dramatically, decreasing doctors time to treat patients.

Vital role for mid-level cadre and community workers

The role of front-line health workers has been critical in rapidly scaling up family practice. Approximately one quarter of Kyrgyzstan's population is located in remote rural areas, and settlements with populations of 500 to 2000 people are still served by *feldsher*–midwifery posts, which were widespread in the Soviet system. They are staffed by at least one paramedic (*feldsher*), and in larger villages, by a midwife and a nurse. They provide basic curative, antenatal and postnatal care, vaccinations and health promotion. Deliveries take place in the nearest general health care centre or district hospital. Most of the posts have been renovated and re-equipped, and staff has been retrained, contributing to improved accessibility and quality of health services in remote areas.

Kyrgyzstan is unique in the former USSR in its use of non-medically trained community workers organized in village health committees. These committees have played a vital role in the health reform programme, supporting service delivery in underserved areas. The initiative, funded by the Swiss Agency for Development and Cooperation, the Swedish International Development Cooperation Agency and USAID, started in 2001, and by 2009, there were more than 1400 such committees, covering about 86% of all villages and about 2.5 million people (almost half the population). Village health committees are independent community-based organizations whose members work as volunteers. They are trained by primary care staff to implement health and prevention activities prioritized by their communities, including promotion of iodized salt and good nutrition, control of brucellosis, hygiene education, the reduction of alcohol abuse, hypertension control and sexual and reproductive health.

The work carried out by village health committees is believed to have had a positive effect on the health of the population, contributing to an increase in exclusive breastfeeding during the first six months, for instance, and a decrease in goitre prevalence among school students[13]. Committee members are valued locally by both the residents and the authorities and they have given rural communities some decision-making power over local health services. Village health committees are seen as innovative low-cost mechanisms to implement priority public health initiatives and create sustainable partnerships between rural communities and the government health system.

Rationalization of infrastructure

Throughout the *Manas* programme (1996–2006), primary care infrastructure was strengthened mainly through government and donor funding. At the same time, there was a major restructuring of obsolete and excessive infrastructure in the hospital sector. Hospital rationalization was among the first priorities, along with the linking of budget allocation to actual performance rather than to inputs such as beds. Hospitals were given an opportunity to decide which part of their infrastructure they should downsize to reduce utility costs, and were given incentives to improve efficiency, measured by bed turnover. From 2000 to 2003, 42% of buildings and 35% of floor space were reduced[23], the largest initiative of its kind in the former USSR. This, combined with planned facility closures, significantly reduced recurrent expenditure and led to an increased share of resources for patient treatment and care rather than for hospital maintenance (this allowed the budget for care under the basic benefits package to increase from 20.4% of hospital expenditure in 2004 to 32.7% in 2007).

New financing mechanisms

Together with restructuring health service delivery, changes in health system financing have been the cornerstones of post-Soviet reform. There has been widespread agreement that improving the population's financial protection and access to care have been consistent policy goals from the start and among Kyrgyzstan's most important achievements. Financial protection was seen as necessary to promote equitable use of essential services as well as to reduce the financial burden caused by paying for health care. The results have been impressive. By 2005, almost universal coverage was provided for all citizens of Kyrgyzstan (through insurance or budgetary funds) with specified vulnerable groups entitled to essential services at no charge. As a result, access to care is expanding. Out-of-pocket and informal payments[c] are declining and becoming more equitable. However, these changes cannot be attributed to increased resources invested in the health sector. Kyrgyzstan's total health expenditure per capita has been consistently the second lowest, after Tajikistan, among the CIS countries (Figure 5.5). Public health expenditure as a percentage of total government expenditure in Kyrgyzstan has remained relatively stable over time, and is also among the lowest in the region, even below countries that have suffered conflict and extreme economic shocks, such as Georgia and Armenia. This suggests that health improvements cannot be explained simply by more government resources spent on health (as a share of GDP or of the public budget).

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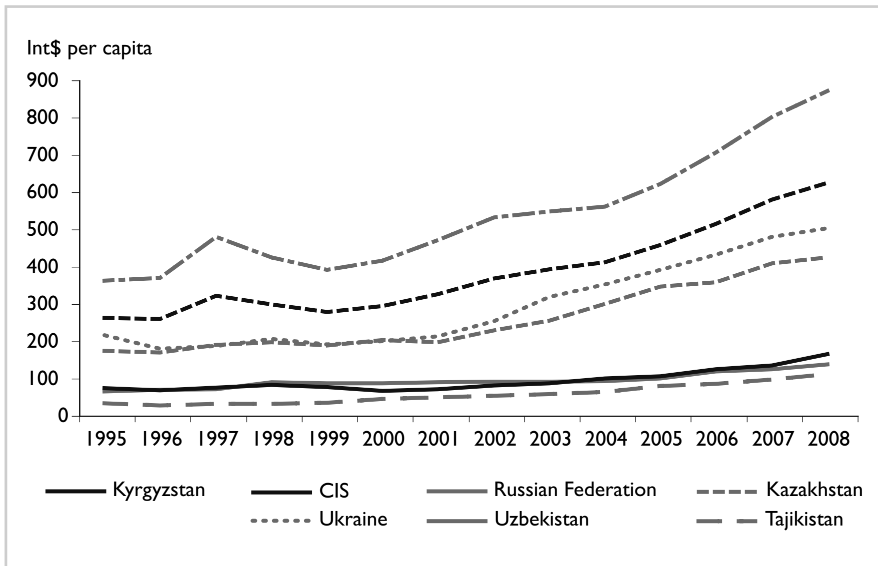
[c] Informal payments are defined as unofficial monetary or in-kind transactions, mainly in the public sector, between a patient and a staff member for services that are officially free of charge.

Figure 5.5 Total health expenditure, WHO estimates



Source: Reference 8.

The next section explains some of the factors that promoted positive results, implemented within the framework of the *Manas* and *Manas Taalimi* programmes. These include:

- providing mandatory health insurance and a basic benefits package;
- addressing out-of-pocket payments for services;
- and improving risk-pooling arrangements through improved resource allocation.

Mandatory health insurance

The most fundamental change to financial protection was the shift from a Soviet-style system financed through general government revenues to a system that combines general taxation and mandatory health insurance. The Kyrgyz experience is in contrast with other CIS countries, which had limited success in implementing health insurance.

The Kyrgyz Mandatory Health Insurance Fund (MHIF) was established in 1997 with the aim of safeguarding resources for health care. Premiums are deducted via a payroll tax (2% paid by the employer), or allocated by the government for those who are unable to contribute. Farmers working on their own land

are required to contribute the equivalent of 5% of their land tax for health insurance. Health insurance coverage is over 80% despite the large rural population working in agriculture.

As reported by senior designers of the reform programme, the strategy's core goal was to ensure equity and accessibility of health services for the poorest in the country, including those in rural and remote regions. This was supported by a shift from reliance on arbitrary top-down state funding to a solidarity-based model based on cross-subsidies among population groups:

> *A principle of solidarity, where the rich pay for the poor, the young pay for the old, the employed pay for the unemployed, and the healthy pay for the sick – we were talking about health insurance. And all these things seemed to be impossible, but we achieved them.*
>
> *Former senior policy-maker in the Ministry of Health*

In conjunction with mandatory insurance, a State Guaranteed Benefits Package (SGBP)[d] was introduced in 2000, ensuring free health services for certain population groups who previously had to pay (formally or informally) to access them. The SGBP is revised annually, with a number of subsidized categories or levels of compensation gradually expanding. Initially, free services were provided for infants and pregnant women, and for childbirth. In 2007, the package was extended to children under 5 and those over 75.

The SGBP seeks to promote essential primary care services for all, and hospital services for certain groups of people; it also defines citizen's rights to receive free care. The SGBP represents an increasing share of public health expenditure, rising from 26.4% in 2004 to 37.9% in 2007. The regional distribution of expenditures under the SGBP has also become more equal. Along with the SGBP, an Additional Drug Package[18], which subsidizes essential drugs in outpatient facilities, has much popular support and been crucial in increasing demand for primary care and access to essential drugs in remote areas.

The introduction of the basic benefits package was a result of effective intersectoral collaboration between parliamentarians and civil society. It was a political decision agreed upon by multiple actors rather than one made by the Ministry of Health. Moreover, the SGBP was financed from multiple sources. The Ministry of Finance provided funds for the population groups covered and the MHIF introduced it.

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[d] The SGBP is a regulatory document issued by the state that defines the scope of health services provided to citizens free of charge or on an exempted basis.

Shifting from a tax-based system to a mixed system funded by tax revenue and mandatory insurance, institutionalizing universal coverage, and providing a guaranteed essential care package have been key to improving access to essential services and increasing equity.

Implementation of the SGBP and the Additional Drugs Package has been hampered by migration, which leads to women not being registered at their place of residence, and consequently, not registered in a health facility at all. According to the Law on State Guaranteed Benefit Package, within the framework of *Manas Taalimi*, a pregnant woman should be registered automatically even without registration of her home address; nevertheless, awareness of this policy is low.

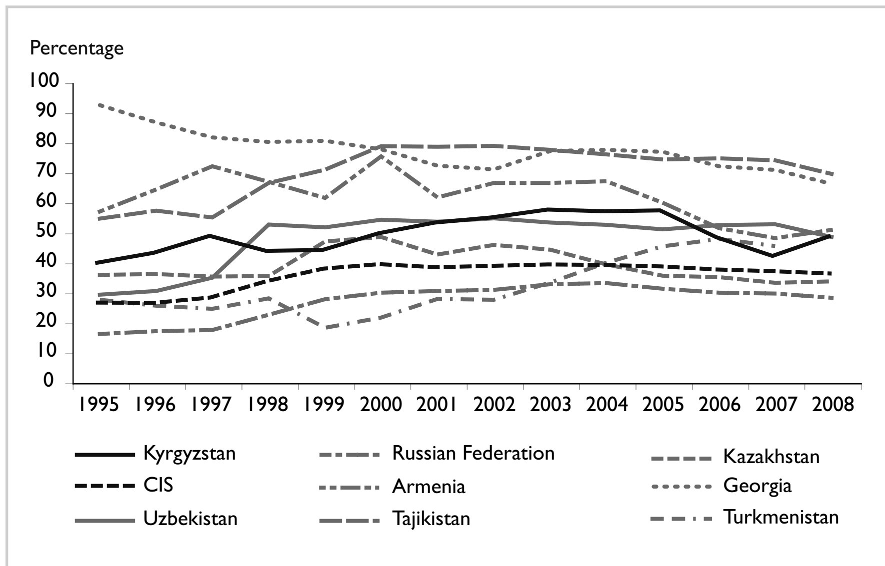
Tackling direct payments for care

During the communist regime, there were few direct payments for health care. However, after independence, out-of-pocket (including informal) payments became endemic[24]. Such payments have often served to fill resource gaps in public budgets and have been critical for sustaining basic health care provision. Kyrgyzstan has an intermediary position in the region in terms of out-of-pocket and informal payments, lower than Tajikistan, whose system collapsed in the 1990s, and Georgia, where health care is predominantly privately financed (Figure 5.6). Payments are most widespread for inpatient care[25]. Despite some recent declines, there are concerns that these payments may limit access to care despite universal coverage. A household survey conducted in 2007 showed that those households reporting it "difficult" or "very difficult" to find the money to pay for health care employed coping strategies such as reducing consumption, using savings, borrowing money from relatives, and depleting household resources[25].

Informally paying for health care is particularly damaging as it can reverse achievements in financial protection. Kyrgyzstan has undertaken the only documented measures in central and eastern Europe and the former USSR seeking to reduce the burden of informal payments. This involved changing provider payment mechanisms, tighter accountability, complaints channels and the introduction of formal co-payments nationwide[26].

As a result of these initiatives, informal payments in Kyrgyzstan significantly declined in real terms between 2001 and 2006, especially for medicines and supplies. Seventy per cent of all hospitalized patients paid medical personnel in 2001 and 52% paid in 2006; 81% of hospitalized patients paid for drugs in 2001, and 51% in 2006[18]. The main reason for the decrease is efficiency savings created by budget pooling (single payer). Reductions in informal payment were

Figure 5.6 Total private households' out-of-pocket payments on health as a percentage of total health expenditure



Source: Reference 8.

not fully offset by the introduction of co-payments, with 40% of patients paying both co-payments and informal payments[18]. However, declines of this magnitude are not seen in other parts of the region and are shown to have a significant impact on affordability. Despite the still high level of out-of-pocket payments, visits to family practices increased by 36% and hospitalization rates rose by 18% in 2005–2007. However, informal payments still made up 26–34% of total health expenditures for hospital care in 2006[18]. The persistence of these payments indicates that there is a funding gap that is still not covered by public funding and co-payments. It may also point to lack of trust in the official system and cultural preferences[18]. Nevertheless, despite temporary setbacks, there is a longer-term decline in informal payments that is not apparent in other countries in the region. Health expenditure is also becoming more equitable and financial and geographic barriers to care have decreased; the share of those who needed but did not seek care in the past month because care was "too expensive" or "too far" fell from 11.2% to 3.1% between 2001 and 2006[13]. In fact, the largest reductions in financial burden on the patient were among the poorest quintile (out-of-pocket health expenditure for this group was 7.1% of the annual household budget in 2004 compared with 4.9% in 2006)[6].

Improved resource allocation

There have also been steps to ensure that available funds are used optimally. A major component of reform was strengthening risk pooling at regional level. Since 2001, the MHIF has been responsible for pooling the health budget funds at *oblast* level (single payer system), merging funding streams from insurance, state and regional budgets into a single pool in order to address socioeconomic and health differences[27]. In addition, amendments to existing laws were rapidly enacted to support defragmentation of funding, which permitted a surprisingly quick implementation process.

Major advances were undertaken in purchasing, and both the MHIF and Ministry of Health became purchasers in their areas of responsibility. These changes aim to ensure that all services in the SGBP are covered by the government budget. There have been efforts to move to strategic purchasing based on projections of the need for medical services.

Changes in resource allocation and the introduction of contracting have also taken place. Under the Soviet system, hospitals were financed according to the number of beds, and staff and managers had limited autonomy to allocate resources according to need[28]. The shift to mandatory social insurance involved the testing and introduction of progressive payment methods for health services. First, case-based payments in hospitals and capitation in primary care were introduced. However, the increased coverage of the population and the existence of multiple financing sources (budget, insurance, local) prompted introduction of a single payer system in 2001–2004, creating single pools of funds at *oblast* level that included local budget funds and transfers from the national budget and reducing fragmentation. Uniform provider payments methods were introduced, which provided incentives for strengthening primary care, for example through an integrated capitation payment for services in family practices. This may have encouraged extensive hospital downsizing. Initially, the new financing mechanisms were piloted in two *oblasts*, and after 2004, were scaled up nationally. This set of sophisticated initiatives places Kyrgyzstan ahead of many countries with similar income levels that spend more on health care. It also shows coherence among different reform components seeking to uphold access and equity. However, despite the far-reaching transformation of health system financing, progress is still limited by relatively low public health spending (despite some increases since 2006), mainly used to cover utility and some operational costs (medical supplies, drugs and salaries), with almost no resources for preventive interventions and equipment. Despite intentions to allocate resources according to need, the financing of peripheral primary health care services is limited.

Political context

This section describes a set of wider policy factors – political and economic – that enabled Kyrgyzstan to design and implement the ambitious reforms of the health system described in the previous section. These factors help to explain the improvements in health and access to essential services relative to the income level of the country.

The pressure to reform

As one of the 15 countries of the former USSR, Kyrgyzstan's policies in the health and social sectors historically reflect Soviet principles stipulating free comprehensive health care for all, subsidized from Moscow. In the early 1990s, trade agreements and guaranteed subsidies ended, triggering a severe economic crisis, and by 1995, the country's real GDP was approximately half its 1989 level. Government spending decreased by 67% between 1990 and 1996[29]. Since 2001, the country has been classified as a low-income country with a GDP per capita of US$ 433[29]. Interestingly, while this decline was accompanied by a reduction in absolute income levels and a rise in poverty[30], Kyrgyzstan had the most rapid decrease in inequality in the former Soviet countries, as measured by the Gini index[2].

The fall in public spending threatened its many achievements in health, education and social protection. Hospitals did not have enough resources to function, and allocated less and less from their budgets to primary care (at the time, regional hospitals allocated resources to all facilities in their regions). The primary care situation became critical: in addition to high staff turnover, there were no supplies or drugs, malfunctioning equipment and restricted emergency transportation. Only limited diagnosis and treatment were possible.

Resources available to the health sector fell from 4% of GDP in 1991 to 1.9% of GDP in 2002[23]. A huge infrastructure and a large number of doctors meant that most state funding had to be spent on utilities and staff salaries (75–91% of the total health budget). Water supply and sanitation were often inadequate; bed linens and food in hospitals were not available. Lack of funds for medication (90% of drugs are imported), maintenance and the procurement and operation of new laboratory and diagnostic equipment resulted in severe deterioration in the quality of health services, particularly in rural areas. The health system was meeting people's needs less and less. Prompted by the serious situation in the health sector and the concurrent economic crisis, the Ministry of Health implemented the *Manas* (1996–2006) and *Manas Taalimi* (2006–2010) programmes, which involved radical restructuring of the health system. These structural

reforms were widely regarded as the only way to keep the system afloat.

> *It was a coercive measure; the country faced a difficult economic situation right after its independence, health-financing reforms were needed due to fragmentation and duplication of health care delivery, inefficient methods of financing and the need to maintain bulky infrastructure....*
>
> *Government expert*

Donors played an important role supporting reforms, particularly in health financing; however, neither the design nor the implementation was donor driven. To develop *Manas Taalimi*, the Ministry of Health, together with WHO, hired a qualified team of six independent experts who worked closely with the Ministry. The strategy was developed during six months of extensive consultations at all policy-making levels.

Kyrgyzstan's health sector reacted more rapidly than other sectors to the political, social and economic changes taking place and was among the first of the former Soviet countries to introduce a long-term reform programme.

Political independence as a window of opportunity

After independence, the rebuilding of the state institutions and social reforms were seen as a "historical necessity" (a phrase used by a key informant in an interview) and were supported at the highest political level. Political momentum enabled the country to make ambitious changes more rapidly than neighbouring countries. In the health sector, powerful individuals and the elite lobbied for health sector reforms, with the understanding that if the status quo was maintained, the health system would deteriorate even more than during the initial post-independence collapse of 1994/1995. As a result, in mid-1996, there was political impetus for radical steps to be undertaken, as the first President, Askar Akayev, declared health system reform a priority.

Early in its independence, Kyrgyzstan was perceived as one of the most politically open countries in central Asia, with a quickly emerging civil society. The country has become a regional centre for donors and international organizations. In 1998, Kyrgyzstan was the first CIS country to be accepted into the World Trade Organization and it was also the first country of the former USSR to introduce its own currency. The first President's policy of engagement with the global health community and interest in evidence-based strategies helped to attract international assistance. The public administration's openness and pragmatism played an important role in the rapid implementation of comprehensive and evidence-based reform programmes and ensured that those programmes were

consistent with international targets. For example, efforts and close communication by the government and key donors ensured that *Manas Taalimi* was aligned with the achievement of the Millennium Development Goals (MDGs).

However, since independence, there have also been occasions when political events threatened to disrupt public sector reforms. During President Askar Akayev's final years, the openness policy and democratic changes were challenged. In March 2005, a popular revolt against perceived corruption and authoritarian policies, coupled with controversial parliamentary elections, forced Akayev to resign (the Tulip Revolution). In April 2010, Kyrgyzstan's second president and government were overthrown amid widespread allegations of corruption, dictatorship, nepotism and a worsening economy. In May and June 2010, ethnic conflict led to killings and destruction; international involvement was sought. Despite political and ethnic turmoil, in October 2010, parliamentary elections were held, leading to a coalition government in December 2010.

It is remarkable that, despite these political challenges, health sector reforms were not disrupted and continuity and institutional stability have been maintained. Kyrgyzstan's major strategic documents, including the Comprehensive Development Framework until 2010, the National Poverty Reduction Strategy for 2003–2005 and the Country Development Strategy, indicate that development of the health system was a priority among other public sectors. In addition to a clear political commitment to improving health, existing managerial capacity was crucial. For set periods, there were restrictions on firing civil servants and technical experts, allowing many health system administrators to remain in place and continue the long-term reforms.

Legal and regulatory change as key facilitating factors

A legal framework built on three main laws has helped to guarantee sustainability of health reforms, even during times of political upheaval and economic difficulties[31–33]. One law regulates the provision of health services to the population[31]; a second regulates how health organizations (facilities) operate[32]; and a third regulates new arrangements for the flow of funds and new provider payment mechanisms[33]. Additionally, all changes to the health system were introduced through the development and formal approval of regulatory documents and norms and standards.

This supportive legal and regulatory framework enabled the comprehensive *Manas* reform. With strong support from the first president and knowledgeable and committed individuals and interest groups in the health sector, Kyrgyzstan was able to enact legislation rapidly, paving the way for mandatory insurance. In

other former Soviet countries, a slow and inefficient legislative process obstructed reform implementation. It should be noted that, along with donors' support, the International Monetary Fund (IMF) also bolstered the implementation of health financing reforms. When the MHIF could not obtain its payroll money from the Social Fund, which gathered payroll tax on behalf of the MHIF, the IMF intervened with the condition that unless the Social Fund transferred funds to the MHIF, the country would not receive further support from the IMF.

Some laws addressed the wider determinants of health. For example, laws were adopted that obligated flour manufacturers to fortify flour with iron and salt with iodine. Similarly, a law on the protection of breastfeeding and regulation of marketing of substitutes of breast milk was approved in 2006[34], the result of lobbying by health system representatives, lawyers, the nongovernmental sector, researchers, paediatricians, parliamentarians and community representatives.

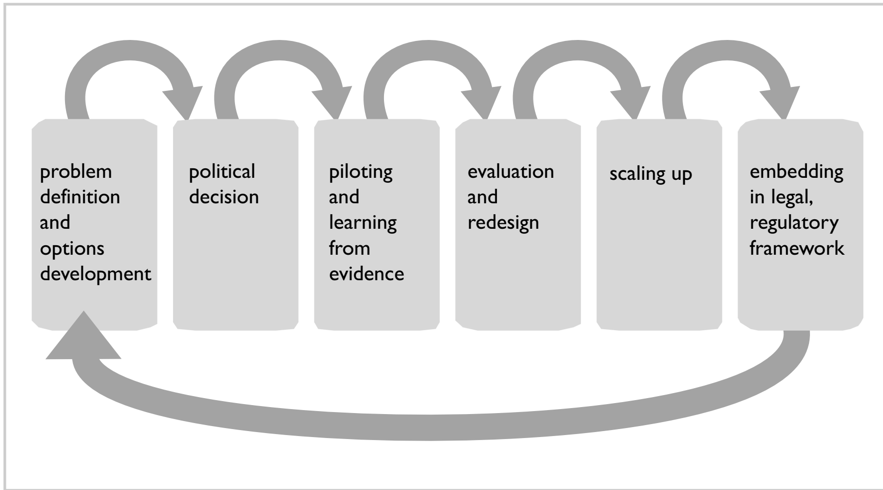
The timely introduction of other laws facilitated health reforms. Thus, some of the modifications in health financing were made possible due to the adoption of the law on *Financial and Economic Foundations of Local Self-Government* (2003)[35], simplifying the budgeting process. This allowed the introduction of the single payer system, which is core to the health system reform.

Effective research-to-policy channels

Another important factor was the introduction of an effective research-to-policy process, which helped to shorten the lag between innovation and implementation (Figure 5.7). The policy process in the health sector over two decades has passed almost two full cycles, going from defining the problem and identifying the options available, to making political decisions, to piloting innovative designs and learning from evidence, to evaluating and redesigning, to scaling up and, finally, to embedding the reforms in the legal, regulatory framework. In 2000, the monitoring and evaluation function was undertaken with technical assistance from the WHO and financial assistance from the United Kingdom Department for International Development (DFID); in 2006, the Health Policy Analysis and Monitoring Unit was integrated into the Ministry of Health's structure. Knowledgeable and committed individuals in the health sector facilitated the incorporation of monitoring and evaluation into routine operations, meeting policy-makers' demand for evidence to use in policy formulation and monitoring.

The Health Policy Analysis Center, a public–private institute established in 2009, conducts health policy and systems research in close collaboration with

Figure 5.7 Features of the policy cycle in Kyrgyzstan



government and donors to inform policy development. Monthly and annual monitoring of performance of health facilities aims to identify problem areas, understand the reasons and improve the situation. These analyses were possible due to investment in multilevel information systems, standardized protocols for reporting and networks for data sharing.

Until recently, the existence of a dedicated unit to connect the policy process with monitoring and evaluation was unique in Kyrgyzstan among the CIS countries. The same function now has been replicated in Tajikistan (2007), Azerbaijan (2008) and the Republic of Moldova (2010), with assistance from WHO-EURO and input from the Health Policy Analysis Center.

Nature of the policy process

Sustained progress in health reform in Kyrgyzstan is the result of a number of characteristics of the political process, including comprehensiveness, continuity, accountability and transparency, intersectoral cooperation, multi-stakeholder engagement and donor coordination.

The comprehensive *Manas* reform programme demonstrated vision and, despite its broad system-wide objectives, had achievable goals and clearly operationalized objectives not found elsewhere in the region. According to the majority of respondents, creating essential structures and mechanisms (especially in health

financing) enabled faster and more effective reform implementation, helping to gain support among key stakeholders and increasing motivation among front-line providers. The changes in health financing demonstrated vision and ambition, as well as the ability to sequence multiple steps along the path towards the main goal.

Continuity was also widely seen to have been important in promoting sustainability. Despite political volatility threatening to derail the reform process (new policy-makers/parliamentarians came into power in 2002 and 2006 and there was political unrest), the reform process has continued with support from powerful individuals such as the first president, along with committed technical experts who remained involved during the entire period. For example, it was emphasized that *Manas Taalimi* (2006–2010) was:

> *... based on continuity and targets cultivating the achieved results under the Manas programme and further development of the sector*
>
> *Ministry of Health experts*

Accountability and transparency were explicitly built into the policy process across all public sectors soon after independence. As a result, indicators of equity, transparency, accessibility and responsiveness of the health system were monitored throughout the *Manas* programme and were shown to have improved[6]. In 2000, transparency was identified as an important issue in the health and finance sectors. In 2002, the government responded with a five-year governance and financial management project funded by DFID. This aimed to increase accountability and transparency of public expenditures through improving budget formulation, enhancing revenue collection and strengthening internal audits. This led to a considerably simplified public health budget in 2006.

The successful implementation of *Manas* was supported by social development programmes and other initiatives beyond the health system. All respondents interviewed described comprehensive intersectoral cooperation, facilitated centrally by a Coordination Council set up by the government and chaired by the vice prime minister, and at *oblast* level, through Coordination Commissions for Health Administration.

There are many documented cases of multi-stakeholder engagement and effective donor coordination explicitly promoted by the government. The health reform programmes were initiated by the Ministry of Health, supported by development partners, and priorities were identified through a consultative process. The *Manas Taalimi* programme was implemented in the framework of a sector-wide approach (SWAp), the first of its kind in former Soviet countries[36].

Implementation was evaluated twice a year during joint annual reviews, and recommendations were discussed at health summits.

These processes enabled strong partnerships among government and non-government sectors and international organizations, and encouraged participation by local communities and the mass media. This has facilitated understanding, acceptance and support by the population. It is a widely shared view that bringing all the donors active in the health sector to a common platform under government leadership has helped to improve efficiency in investments in health systems, achieve synergies across the sector and emphasize the joint responsibility for the gradual expansion of pilot projects.

Effective coordination and collaboration was unique in this region to Kyrgyzstan, partly explained by knowledgeable and committed individuals in the health sector who were able to exert political influence. A culture of pragmatism and a supportive institutional environment, combined with mutual trust among actors and interest in partnerships and joint action, were also commonly reported by key stakeholders.

Beyond the health system: what can explain Kyrgyzstan's achievements?

This section reviews a number of contextual features that may have influenced health gains and effective health care reforms. Many of these factors relate to the characteristics of the country and its people.

The human factor: inspirational leaders and ideas

Kyrgyzstan's improved health outcomes and stronger health system are frequently attributed to human resource capacity at three levels. The first is the presence of strong national leaders (particularly the president) and institutions in the health sector and beyond. The first Kyrgyz President Askar Akaev was highly educated and interested in innovations and policy change.

> *…the role of personality in the history of the country is a cornerstone for promoting the changes in the country.… It is important how the leader in this or that sector is educated and committed to reforms. If he/she is then the changes could be developed and introduced quickly in the country.… An example is Askar Akaev, first President of Kyrgyzstan*
>
> *Respondent from the former governor's office*

Second, a number of powerful individuals and elites lobbied for reforms in the health sector, reflecting concerns about severe deterioration and even collapse of the health system. Third, there was strong capacity in the Ministry of Health and other executive agencies, aided by relatively low turnover and intensive efforts in capacity building by donor agencies. As mentioned above, charismatic actors with a long-term commitment in the health system played an important role in sustaining the reform process.

> *...during 1997–2005, a few times the reforms were under threat because new parliamentarians, policy-makers came to power who were not aware about health reforms. The strong technical team in the health sector that was in place at that time did not let them destroy what had been done already via educating them about the rationale behind the health reforms...*
>
> *Donor representative*

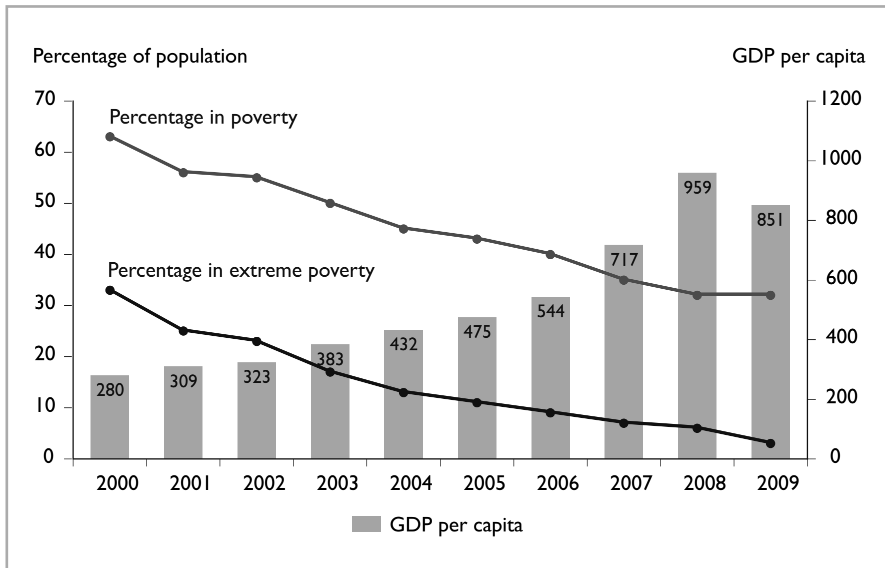
It is the predominant view that well-educated, motivated and committed individuals, trained during the former Soviet period, were instrumental to reforms soon after independence and to sustaining momentum often in difficult circumstances. In many rural areas of the country, older health care professionals effectively sustained a basic service.

> *We probably have to pay them credit that 70% of all health professionals are people with an old Soviet mentality, and they are very dedicated to their work. Notwithstanding the fact that they have been wearing the same shoes for 15 years, that they have holes in their purses, and that they cannot afford to spend money for fun, they cannot turn their backs on their patients. Therefore, probably by virtue of their education ... they cannot leave their jobs and their quite modest salaries, and they bear the burden, although at the same time this is their calling, and they do that throughout their whole life ...*
>
> *Ministry of Health official*

Economic growth

After the crisis of the 1990s, Kyrgyzstan benefited from significant economic growth, resulting in increases in income and a decline in poverty rates between 2000 and 2007 (Figure 5.8). Sound economic policies have ensured macroeconomic stability. In 2007, economic growth was particularly strong: real GDP growth rate of 8.7% was the highest recorded in the previous ten years. Growth did not benefit all population groups equally, as it was accompanied by a 20% rise in consumer prices, particularly for food, which usually hits the poorest

Figure 5.8 Trends in GDP per capita and poverty rate, 2000–2009



Source: Adapted from reference 6.

groups. However, recent household surveys indicate that poorer households increased their consumption more than other income groups[6].

The more promising economic situation and the resulting improvement in water and sanitation, nutrition and living conditions may explain, on the one hand, decreases in child mortality. On the other hand, maternal mortality, which is more dependent on the health system and has been associated with high informal payments, has stagnated.

Empowerment of women

The role of women in Kyrgyz society has increased during the past decade. In 2007, a special amendment was made to the "Election Code of the Kyrgyz Republic", mandating the inclusion of women in government structures. There is now a minimum quota of 30% representation of women in parliament and the auditing chamber[37,38]. In 2008, Kyrgyzstan had more women in parliament (26.6%) and government (21%) than any other central Asian country[39]. In many cases, female parliamentarians have helped to prioritize health issues.

This represents considerable progress considering that in 2005 there were no women in parliament and just one woman in a senior government position[39]. In

2010, Roza Otunbayeva was elected President of Kyrgyzstan, the first time a woman has held such a position in central Asia; and the Constitutional and the Supreme Courts of Kyrgyzstan are headed by women. In public institutions and in the judicial system, representation is almost equal, although women occupy more junior positions than men.

Freedom of movement for women and physical access to health facilities is relatively good, which may be the reason for the high utilization of maternal and child services, and for nearly universal births in health facilities.

Historically, due to the influence of the Muslim religion, some central Asian countries shared the belief that education was necessary for men but not women. However, in Kyrgyzstan, these beliefs have not been prevalent, and families have invested equally in the education of girls and boys. The literacy rate is almost 100%, with only small regional and ethnic variations. For the 2006/2007 school year, net enrolment in primary education was about 88% and enrolment in secondary education was approximately 85% (similar for both sexes)[39]. In 2002/2003, just over a half of the students enrolled in higher education were women[40].

Alongside these achievements, however, are concerns about the actual quality of the schooling provided[41,42]. Stereotypes still prevail and women who pursue higher education typically choose gender-specific training, opting for education, health care and social sciences. There are also equity concerns because enrolment, attendance and educational performance of children are lower in rural areas compared with urban areas. Other problems include low teachers' salaries, a shortage of free textbooks, deteriorating infrastructure of schools and poor quality in rural areas.

In addition, women lost many benefits following the break-up of the USSR. The government's system of support for working women is insufficient. Since independence, the closure of affordable state-run child care services means that women are faced with a double burden of caring for their children and working to contribute to the family income often with limited support from employers. Social benefits have been eroded in value (in 2008 the child benefit was US$ 15 per child per month)[40]. Maternal mortality and reproductive health are impacted by the severe workload of pregnant women, who are traditionally responsible for household duties and care for family members, combined with income-generating activities in the informal sector.

Early and consanguineous marriages also have a negative influence on maternal and child health and education opportunities. These are growing, with severe consequences for pregnancy and morbidity. There are 11 to 12 marriages

registered officially each year in which the bride is under 16 years and about 300 cases when a bride is under 17; however, there are indications that many marriages in this age group are not registered with the authorities[40]. Raising the minimum age of marriage from 16 to 17 years is currently being considered.

On the positive side, the total fertility rate has shown a dramatic decline: from 4.9 in 1970, to 3.6 in 1991, and to 2.8 in 2008[8]. This is unprecedented in central Asia. In addition, there are signs of progress regarding lowered fertility rates in women aged 15 to 17, with a reduction of 60% in recent years. Also, in 2004, the age group between 20 and 29 years accounted for more than 60% of the births in the country[43].

The use of contraceptives has increased. Traditionally, as a result of the limited supply and affordability of contraceptives before independence, women in central Asia relied on legal abortion for birth control[41], which only requires consent of the pregnant woman to be performed[44]. Modern contraceptive use increased from 30% in 1990 to 47.8% in 2005[5], attributed to the wide dissemination of information about family planning from NGOs and other aid agencies.

However, growth in traditional and religious beliefs and values, and a weak system of improving awareness about sexual health issues, means that investment in family planning and use of contraceptives needs strengthening. In recent years, materials promoting home deliveries and refusal of contraception have started to appear in the mass media and there are reports that in 2009 these were generated by religious organizations operating in the south of Kyrgyzstan, which shares borders with more religious countries such as Uzbekistan and Tajikistan.

Trust and solidarity

Despite multiple political changes, health sector reform benefited from high levels of public trust in the country's institutions. In 2002, representative surveys showed that citizens in Kyrgyzstan trusted institutions such as the government, the parliament and the president much more than citizens in any of a group of eight former Soviet countries, which may have led to more support for reform (*Living Conditions, Lifestyle and Health Surveys*, unpublished data, 2001; authors' calculations from private area of website http://www.llh.at/, accessed 14 March 2011). However, this may have changed following the political instability in more recent years. In addition, Kyrgyzstan has been rated the most receptive country for setting up new businesses due to its regulatory framework, considered trustworthy and supportive compared with regional standards[45]. Kyrgyzstan is the only central Asian country to have both Soviet and US military bases, which may be interpreted as an indicator of political openness[46].

Social factors that contribute to good health in Kyrgyzstan include solidarity and the ability to draw on family relationships in order to access care. However, reliance on information provided through informal channels may be problematic; recent studies reveal that parents do not recognize dangerous disease symptoms in their children and seek health care late, a major concern in some areas.

Kyrgyzstan is the second most ethnically diverse country in the region[3]. All citizens of Kyrgyzstan – irrespective of their ethnicity – have access to health care services. However, the influx of refugees (for example, in the 1990s and early 2000s from Tajikistan) created barriers to accessing health care, as the migrants were not citizens of Kyrgyzstan and had to pay out of pocket. This has been addressed, for example by a joint Ministry of Health and United Nations High Commissioner for Refugees programme for the integration of Tajik refugees into the national health system in 2002–2009, with 8000 refugees included in the mandatory health insurance system[47].

Lessons learned and future challenges

Kyrgyzstan has maintained or slightly improved the health of its population despite periods of political and economic turmoil, including severe cuts in public spending on health. As this study has demonstrated, this was possible because soon after independence in 1991, the government and donors moved quickly to build the foundations of a strong health system. This vision was manifested in the comprehensive *Manas* and *Manas Taalimi* reform programmes, which radically restructured the health system and linked reforms to measurable outcomes. Despite two major revolutions and economic crises, as well as a change in leadership, the reform programmes provided a solid base for long-term health system strengthening, and spurred action by government agencies and donors. This contrasts with the experience in other countries of the former USSR.

The first reform plan, *Manas* (1996–2006), provided a stable and coherent framework to channel donor investment into the health sector (thereby avoiding programme verticalization), and to coordinate efforts by different national and international agencies under government leadership. *Manas* led to a shift from specialist-oriented care to family practice, implementing a basic benefits package, promoting health financing reform through contracting and a consolidated single payer system, and liberalizing the pharmaceutical market. Rationalizing hospital care has also been part of the reform. The process of policy change built on the positive features of the former Soviet model, preserving the value of universal coverage and access to affordable care for all, made reforms popular. There was an understanding that addressing health needs

Box 5.3 Future challenges

- High levels of noncommunicable and chronic disease
- Low public health spending
- Persistence of out-of-pocket and informal payments (despite the formal guarantee of free access to a basic package of health care)
- Growing migration (both internally and externally), which hinders access to and use of health services
- Political instability
- Health worker retention
- Need for better financial protection and equity in the system, particularly for disadvantaged population groups.

requires broader developmental strategies that encompass health and other sectors.

While the reforms in both *Manas* and *Manas Taalimi* focused on interventions in priority health areas, strategic elements strengthened the overall health system, enabling effective implementation, including planning and monitoring. This was made possible through consistent government leadership and support for health system reforms, the coordination of multiple actors, national ownership, a comprehensive approach – including financing as well as other health system building blocks – and community involvement. Reform design and implementation have benefited from continuity and strong human resource capacity in the health sector (both clinical and managerial) and in the government. Key figures remained in leading administrative roles and were a driving force of radical policy change. Many of these elements were unique for Kyrgyzstan among its neighbours. The health system is considered a model of good practice in central Asia and certain features are being replicated throughout the region. Nevertheless, efforts need to be continued with a heightened focus on current challenges (Box 5.3).

The Kyrgyz experience illustrates the advantages of investing in health sector development, improving the legal and regulatory framework, promoting accountability and recognizing the crucial role of strong leadership and coordination among sectors and actors. Tangible improvements have been achieved in health and affordability of essential care and in addressing the needs of disadvantaged population groups. Good outcomes can be traced to practices and political processes reflecting good governance and a political culture of openness.

By continuing this positive trend and concentrating on current challenges, achievements can be not only sustained but consolidated.

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