Manas Health Policy Analysis Project

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Evaluating Manas Health Sector Reforms (1996-2005): Focus on Restructuring

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Acronyms

ALOS	Average Length of Stay
CME/CPD	Continuous Medical Education/Continuous Professional Development
DFID	Department for International Development
DHCR	Department of Health Care Reform
EBM	Evidence Based Medicine
FGP	Family Group Practice
FGPA	Family Group Practice Association
FM	Family Medicine
FMC	Family Medicine Centers
FSU	Former Soviet Union
GP	General Practitioner
HA	Hospital Association
Health I	Health Reform Project I financed by World Bank (1996-2001)
Health II	Health Reform Project II financed by World Bank (2001-2005)
HOPD	Hospital Outpatient Department
HPAP	Health Policy Analysis Project
HRM	Human Resources Management
KR	Kyrgyz Republic
KSMI of CME/CPD	Kyrgyz State Medical Institute of Continuous Medical Education/Continuous Professional Development
MAC	Medical Accreditation Commission
Manas I	National Health Reform Program (1996-2006)
Manas II	National Health Reform Program (2006-2010)
MCH	Maternal and Child Health
MHI	Mandatory Health Insurance
MHIF	Mandatory Health Insurance Fund
MOH	Ministry of Health
NCHP	National Center for Health Promotion
NGO	Non-Governmental Organization
NHIC	National Health Information Center
PAD	Project Appraisal Document
PC/PHC	Primary Care or Primary Health Care
SES	Sanitary and Epidemiological Service
SRC	Swiss Red Cross
SDC	Swiss Agency for Development and Cooperation
SSECC	State Sanitary-and-Epidemiological Control Center
SUB	Rural District Hospital
TD	Territorial Department
USAID	United States Agency for International Development
WB	World Bank

Executive Summary

The government of the Kyrgyz Republic (KR) is in the process of developing its next National Health Reform Program for 2006-2010. This paper is one in a series of studies evaluating the achievements and unfinished agenda of the first phase of health sector reforms in the Kyrgyz Republic between 1996 and 2005. The goal of these studies is to inform the development of the next phase of health sector reform. **The focus of this paper is to evaluate the restructuring of the Kyrgyz health system, with particular emphasis on how it has affected efficiency of service delivery and access to care.**

The objectives of this paper are to (i) to accurately document the restructuring and rationalization of health delivery system at the level of primary care, hospital care and public health system including changes in organizational structure, physical infrastructure, human resources, staffing ratios, and the resulting impact on finances; (ii) evaluate the effect of restructuring on the efficiency of the health care system and on access to health care services; and (iii) provide lessons learned from restructuring in order to inform phase II.

Under the FSU, the health system was over-sized and ill-structured. Health care provision was overly hospital centered with poor emphasis on primary care. This was reflected in resource allocation patterns as the majority of state funds were allocated to hospitals and in particular to specialized hospital facilities. The health system functioned with too many buildings, too many staff and high utility expenditures. Staff and utility expenditures took up 80% of the public budget, leaving very little resources for direct medical spending and patient care. The result was an inefficient medical system that resulted in sub-optimal health outcomes for the Kyrgyz population. In addition, the system itself was increasingly unsustainable as the fiscal constraints and shifting public policy priorities resulted in decreasing public resources for the health sector.

These inefficiencies were a major impediment to use scarce resources for the improvement of access to health care and improvement of health outcomes. Thus, achieving efficiency gains became a major objective of the first phase of the Manas reforms as a precondition for focusing on access and equity improvements in later stages.

To achieve these efficiency gains, the Kyrgyz health system underwent major restructuring over the period of 1996-2005. The main goals of the restructuring efforts were to improve efficiency, quality and access in the Kyrgyz health system. This meant overhauling the physical infrastructure, human resource policy, management culture, and overall organization of institutions and activities to create a smaller, more “patient focused” and “primary care oriented” health system. The hope was that this would result in a health system that is less costly to operate and has better health outcomes in the long term. To achieve these objectives, several levels of the health care system have been restructured including primary care, hospital care and the public health system.

- **Primary care**. The aim of the primary care reforms was to shift away from the traditionally hospital-centered care to a greater emphasis on primary care. Primary

care has been organizationally and financially separated from hospital care. Independent family group practices (FGP's) have been set up. Population is required to enroll with an FGP and FGP's in turn are paid based on the number of enrolled population. The material-technical base of primary care has significantly improved due to significant donor investments in renovations, rehabilitations, and new medical instruments and equipment.

- **Hospital care**. The infrastructure of the hospital system has gone through major downsizing. The square footage of the hospital sector has been reduced by 39.6%, the number of buildings by 46.5%, with a resultant savings in utilities costs. Many rural district facilities have been transformed into FGP's or structural subdivisions of territorial hospitals. In several cases, donors supported the introduction of energy-efficient heating and water systems. In other cases, increased autonomy enabled innovative hospital managers to make their own efforts to reduce these costs.

- **Public health and SES system.** Restructuring in the public health system has been less extensive than in the health service delivery system and remains to be a task for the next phase of the Manas Reforms. However, important steps have been taken to begin the downsizing of SES and its laboratory system, as well as to separate the functions of health promotion and health protection. In addition, significant training activities have also taken place to begin modernization of public health activities.

These efforts have achieved significant improvement in efficiency as we demonstrate in this paper. The share of health care expenditures devoted to primary care has tripled which is reflected in higher wages of primary care personnel. In the hospital sector, productivity indicators have improved. The share of expenditures allocated to utilities and staff has declined leaving more resources for direct patient treatment expenditures. At the same time, hospitals are warmer in the winter, doctors are better paid, and drugs are more widely available in hospitals.

We find no evidence that restructuring and downsizing have created access barriers for the poor. A major concern in countries where the hospital sector has been downsized is the effect of these efforts on access to care. We show in this paper, that access to health care for the poorest segment of the population has not changed significantly over the past years. It has to be mentioned, however, that the financial burden of seeking care continues to be high for the poor households as was the case prior to restructuring. These findings suggest that since efficiency gains have been so effectively tackled in the first phase of the reforms, it is essential that Manas-II be more focused on reducing the financial burden of seeking care for the most disadvantaged part of the population.

There were many lessons learnt during the restructuring process that are relevant for a wide-range of complex health system reforms:

- Given fiscal constraints and severely declining public resources, failure to restructure the health system would have have worsened access and health outcomes.

- Restructuring was successfully implemented in the Kyrgyz context because it was a component of a broader health system reform and not a stand-alone effort. Health financing reform, in particular, was a key for the success of restructuring to ensure that facilities had the right incentives to downsize. The two reform steps were appropriately sequenced.

- Restructuring has resulted in measurable gains in efficiency. However, investment into energy efficient heating and water systems has been a key to optimize utility consumption in post-soviet health systems.

- Attention was paid to building stakeholder participation and communication at all levels;

- There was no "magic bullet" for successful reform; what works in one country may not work in another;

- Piloting of new ideas and reforms prior to rolling out to the entire country helped surface unforeseen problems and help build capacity for national roll-out;

- Strong donor and project coordination was important to avoid duplication of efforts and contradictory policy directions;

Certain areas of restructuring did not progress as fast as expected. Little progress took place in the restructuring and rationalization of Bishkek City (both Republican and City facilities), and Osh City/Osh Oblast. The lack or real progress in Bishkek and Osh is partially due to the inability to pool funds and implement a single payer system. This is the major impediment to the improvement of regional inequalities in the distribution of funding. Progress with SES restructuring has been slow to take hold and while a number of changes have been made a lot is left over for Manas-II.

A major shortcoming of the restructuring efforts was the difficulty to retain savings for those areas that have achieved significant downsizing. In part, this is due to the slow reform progress of the overall public sector which continues to function and allocate budgets based on inputs rather than outputs. In part, it is due to weak advocacy function the health sector has fulfilled in building alliances and fighting for at least constant budget shares in the annual budget negotiation process. The inability to retain all savings undermined the restructuring process in the eyes of many health care professionals and reduced incentives for further restructuring efforts. Output-oriented incentives within the health sector need to be matched with an end to input-based budget determination from outside the sector.

The unfinished agenda on restructuring for Manas-II includes the following:

- Continued pooling of funds and implementation of the single payer system at all levels of the health system as well as ensuring that savings can be retained;
- continued "right-sizing" the total health system, especially in Bishkek and Osh cities

- continued improvements in the material-technical base of both primary care and hospital service delivery;

- development of an effective tertiary care system with additions of new technology in selected tertiary care areas;

- improvements in human resources management including narrow specialists in primary care by ending duplication in responsibilities for specialist outpatient care;

- continued reform of SES and development of effective health promotion and public health functions;

- development of a capital investment plan for improving the energy efficiency of hospital buildings.

I. Introduction

The government of the Kyrgyz Republic (KR) is in the process of developing its next National Health Reform Program for 2006-2010. This paper is one in a series of studies evaluating the achievements and unfinished agenda of the first phase of health sector reforms in the Kyrgyz Republic between 1996 and 2005. The goal of these studies is to inform the development of the next phase of health sector reform. **The focus of this paper is to evaluate the restructuring of the Kyrgyz health system, with particular emphasis on how it has affected efficiency of service delivery and access to care.**

The KR inherited a post Soviet health care system that was both capital and labor intensive, economically inefficient, and financially unsustainable. It was generally accepted that any improvements in both access and quality of health care services required first tackling some of these structural inefficiencies. Consequently, restructuring and rationalization of the health service delivery system became a key policy instrument during the first phase of the reforms in order to achieve increased efficiencies as a precondition to quality and access improvements.

Objectives of this Paper

The objectives of this policy paper are as follows:

1. To accurately document the restructuring and rationalization of health delivery system at the level of primary care, hospital care and public health services including changes in organizational structure, physical infrastructure, human resources, operating costs, and the resulting impact on finances;

2. To evaluate the impact of the restructuring and rationalization reforms on the efficiency of and access to the health care system;

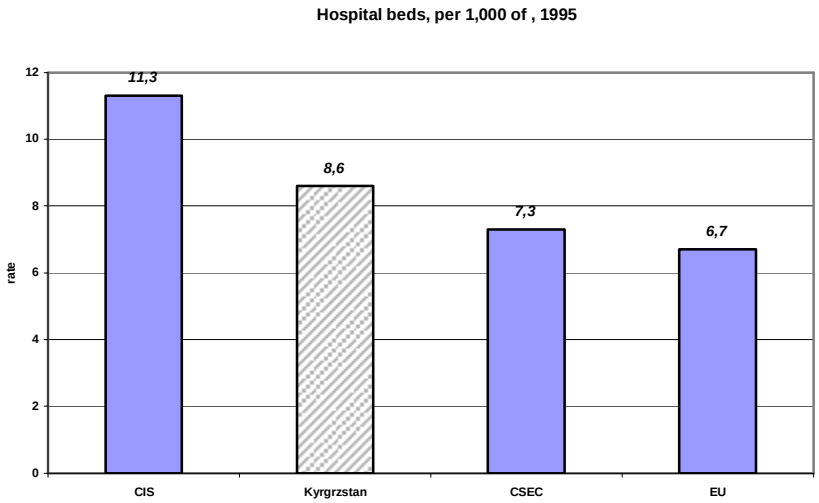
3. To outline the “lessons learned” from the restructuring and rationalization implementation during Manas I in order to assist with Manas II strategies.

This study was prepared as a collaborative effort of several organizations. The study and the data collection effort was designed and led by the WHO-DFID Health Policy Analysis Project with active collaboration of the World Bank Technical Coordination Unit, Socium Consult, Hospital Association, the Mandatory Health Insurance Fund, and the DFID supported Human Resource Management Project.

II. Background

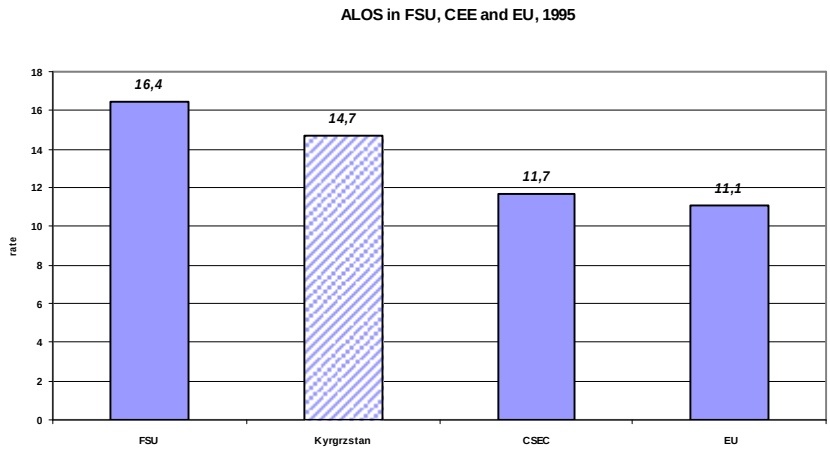
The Kyrgyz Republic inherited a health system that was organized, managed and financed according to the *Shemasko* model. Although the Soviet system guaranteed free access to services, it was inefficient. Kyrgyzstan inherited excessively high hospital capacity rates (8.6 beds/1000 population) which was much higher than any Western European country. Average length of stay was long (approximately 14.7 days) and the occupancy rates were around 86%. [1] One major issue was the excessive number of personnel with the highest priority given to physicians.

Figure 1. Total number of beds per 1,000 in CIS, CSEC and EU



Source: HFA Database

Figure 2. Average length of stay in CIS, CSEC and EU



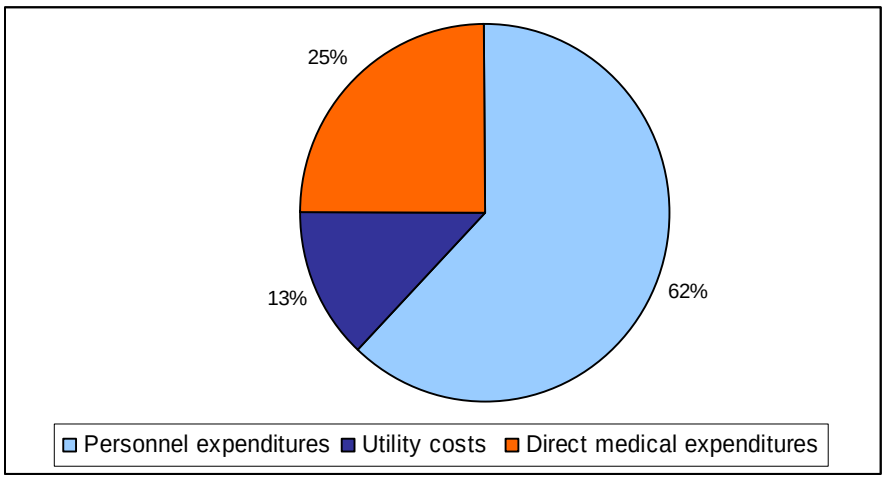
Source: HFA Database

[1] World Bank. 1993. Kyrgyztan – The Transition to a Market Economy. The International Bank for Reconstruction and Development, The World Bank, Washington DC.

The collapse of the Soviet Union created pressures for reforming the health system. In the immediate years after transition (1990-95), there was a 50 percent decline in GDP from its 1990 level.[2] This had immediate implications for the resources available for the health sector. In turn, the decline in available resources made the existing inefficiencies painfully clear. There were a number of manifestations of inefficient production of health in the Kyrgyz health system, and are outlined as follows:

First, technical efficiency was poor. The production of health care services was wasteful with too many buildings, too many staff, too much unused capacity. Maintenance of the existing infrastructure (utilities and staff) took up 75-80% of the total health care budget leaving very little for direct medical spending (drugs, supplies, etc.).

Figure 3. Health expenditures allocated to utilities and staff in 1995

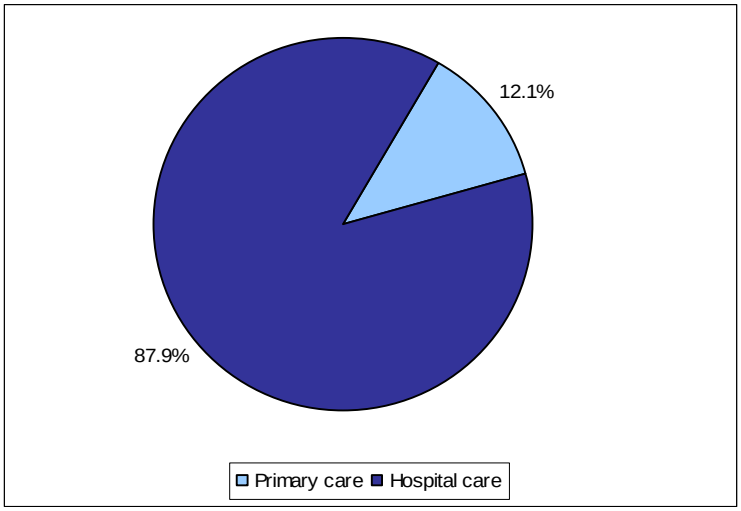


Source: Central Treasury

Second, allocative efficiency was also poor mostly due to hospital centered treatment modalities and little emphasis and focus on primary care and outpatient care. This was also reflected in the allocation of public spending with the majority of state funds allocated to hospitals and in particular to specialized hospital facilities. As a result, the structure of expenditures did not meet current needs, such as improvement of quality and accessibility of primary health services, healthy lifestyle promotion and implementation of measures to improve health status.

[2] World Bank. 2001. Kyrgyz Republic – Review of Social Policy and Expenditures, The World Bank, Washington DC.

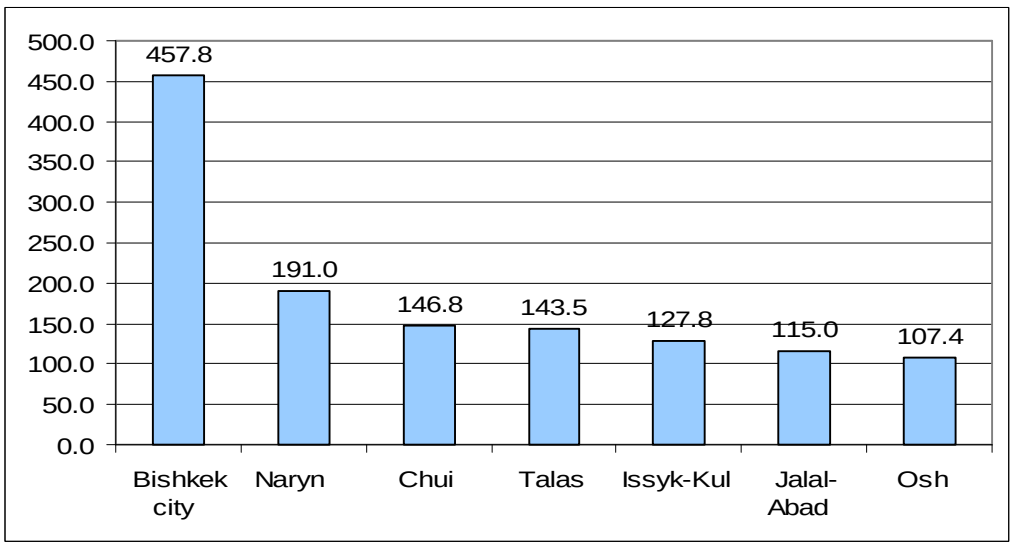
Figure 4. Health expenditures allocated to primary and hospital care in 1997



Source: Central Treasury

In addition to inefficiencies, the structure of the delivery system also contributed to and exacerbated **geographic inequality and access problems**. The level of expenditures per capita in Bishkek is three times the level of per capita expenditures nationwide. The major cause of geographical inequality is the fact that expenditures from the state budget are allocated to specialized health facilities which are mainly concentrated in Bishkek. Addressing this issue was not possible without a major restructuring of the service delivery system.

Figure 5. Per capita health expenditures by oblast in 1997



Source: Central Treasury

As a result of these inefficiencies, a major objective of the Manas Health Sector Strategy was to increase efficiency and reallocate these efficiency gains to primary care and geographically underserved areas. It was clear that restructuring and downsizing were to be major instruments to achieve these objectives. At the same time, it was also understood that restructuring through administrative mechanisms had failed in many transition economies and thus restructuring had to be part of a broader vision of health system change. In particular, the sequencing of the reforms became important to ensure that providers and facilities had the incentives to restructure. As a result,

reforming the health financing system and reforming service delivery went hand-in-hand.

The key feature of the health financing reform was the introduction of oblast-level single payer purchasing pools under the Mandatory Health Insurance Fund (MHIF). As a para-statal autonomous public organization, the MHIF was able to move away from the line-item input based financing which generated many of the inefficiencies in the first place. At all service delivery levels, performance based provider payment mechanisms were introduced with capitation payment in primary care and case-based payment in hospital care. The change in provider payment mechanism created strong incentives for providers to downsize and save on input costs while increasing their output mix.

With the proper incentives in place, the Manas reforms envisaged restructuring and consolidation of health facilities at all three levels of the health system including republican institutions and specialty hospitals, oblast and rural hospitals and primary care outpatient facilities. Further, it was envisaged that inpatient services in Bishkek will also be rationalized in order to reallocate resources from the tertiary and secondary levels to primary level, as well as from Bishkek to various oblasts.

Savings generated from consolidation were to be directed towards primary care, and priority health care services such as maternal and child health (MCH) services, controlling of communicable diseases such as TB and HIV/AIDS. The primary care reforms were to create a single organizational entity capable of providing most primary health care services for families and strengthening clinical activities at the primary level. Regulated growth of private sector provision of health services would also be encouraged under the reform program, and hospitals would be consolidated and merged in a planned way to reduce the total number of hospitals in the country.

In addition to plans for the restructuring of health services delivery, mobilization, allocation, and purchasing of health services, the Manas I reform also developed a plan for human resources development. This new plan for human resource management (HRM) included new estimates of the need for human resources, adjusted the supply of trained personnel, and improved the recruitment, career development, reimbursement and incentives for human resource development. [3]

[3] Ministry of Health. 1996. Manas Health Reform Program. MOH, Bishkek, The Kyrgyz Republic.

III. Documenting the Major Changes

One of the objectives of this paper is to accurately document the changes in the structure and organization of the health care delivery system. Outlined in this section are the major changes and the progress in restructuring primary health care, hospital care, and the public health system.

While the Manas I Project has been developed and implemented over a number of years, sufficiently accurate data and information is only available for the years 2000 onwards to effectively evaluate the improvements and changes in efficiencies, access, and funding of the health delivery system. For the purpose of this policy paper, the "Base Year" and years for data collection, comparison, and evaluation are the years 2001, 2002, 2003, with some data and comparisons with year 2000 – see Appendix #2 for data sources.

A. Restructuring of Primary Care System

A key reform area under Manas I was the major restructuring of the primary care system. Under the FSU, the health system was dominated by hospital care and "specialty oriented" facilities. Primary care was delivered through rural health posts or urban polyclinics staffed by specialists but no family physicians. The main primary care entry points included:

- Feldsher-midwifery post (FAP) staffed by community nurse/midwife;
- Rural physician clinic (SVA) staffed by non-specialist general practitioners;
- Polyclinics, staffed by therapists who looked after adults, pediatricians who looked after children, gynecologists who were responsible for women's health, as well as a large number narrow sub-specialists (such as ENT surgeons, neurologists, ophthalmologists, cardiologists) who worked at the primary and secondary care level and received patients directly through referral

There was no General Practitioner (GP), and only in rural areas some physicians practiced general medicine and saw both children and adults. The concept of Family Medicine (FM) did not exist. Primary care was the entry point into the system, but primary care physicians had a narrow scope of diagnostic and treatment practice. Many patients were referred to the next level or self-referred themselves directly to hospital specialists. There was little diagnostic or therapeutic equipment to assist the primary care practitioner with diagnosis and treatment, outpatient drugs were unavailable, and often the facilities lacked running water, heat, hot water, working telephone, transport, or other environmental conditions conducive for effective diagnosis and treatment of patients at the primary level.

Numerous changes have been introduced in the framework of the Manas-I reforms with the aim of improving the quality and accessibility of primary care services for the

population. "Restructuring" and "reorganization" were introduced as elements of a comprehensive set of reforms that aimed to achieve a complete shift in vision for primary care. The main instruments to transform the Soviet-style primary care into family medicine included the following steps:

- Creating organizationally autonomous primary care group practices (FGPs, and FMCs) increasingly staffed by generalists rather than specialists. The organizational separation of the former polyclinics from hospitals was often importance for raising the status of primary care. There are now approximately 700 FGP/FMC operating effectively, with 31 of the FGP's being independent juridical entities;

- Introducing population enrollment with free choice of primary care physician;

- Changing the payment mechanism for primary care by moving away from paying for inputs to a capitation-based payment based on the number of enrolled population;

- Introducing the concept of "Family Medicine" into the practice of primary care physicians through improved training, and continuous medical education/continuous professional development (CME/CPD

- Introducing primary care clinical practice guidelines

- Strengthening the material-technical base of health facilities, including renovations, rehabilitation, providing new instruments and equipment, including laboratory testing equipment;

- Introducing the Additional Drug Package to encourage treatment of primary care clinical diseases on an outpatient basis;

- Developing a referral system to reinforce the "gate-keeping" function of primary care backed by demand-side financial incentives through a co-payment policy;

- Making FGP physicians more "patient oriented", management-focused and entrepreneurial.

Several donor organizations actively supported restructuring of primary health care. In 2003 under the World Bank Health II Project, approximately 600 physicians and 700 nurses from all regions of the republic were retrained on Family Medicine Program. Under Health I, approximately 39 FGP/FMC's in Chui and Bishkek were renovated and rehabilitated. Under Health II approximately 113 FGP/FMC received new medical equipment, and large amounts of funds were expended in Naryn Oblast by the KSRC project, KfW, USAID and others added funds for equipment and renovations in other oblasts – see tables in the Appendix.

During the period (2001 to 2003) the volume of financing for primary care, in absolute value, increased almost in three times; and the share of actual expenditures for Primary Care increased over the same period from approximately 15% to 33% - see tables in the Appendix. Table 1 below presents the restructuring process in numbers between

2001 and 2004. It should be noted that most primary care restructuring took place earlier than the review period in this current paper. A few of the key trends include:

- The previous polyclinic facilities were organizationally separated from hospitals, with their staff transferred to primary care facilities. This process was completed in 2002 and hence we note a doubling of primary care personnel in the general staff structure;

- Public expenditures for primary care have been increasing significantly. Per capita expenditures have almost tripled during 2001 and 2003 which is significant considering the constraints on the overall health care budget;

- Increases in primary health care expenditures allowed significant increases in the salary and benefits of primary care personnel which increased four times, and the average wages of physicians increased by 70%, nurses by 78%, and support staff by 77%.

These indicators show significant progress in the area of primary health care restructuring. There are more FGP/FMC's, more renovations, more medical equipment, more funds for primary care, increased numbers of staff, increased retraining of specialists into primary care physicians, and higher wages for primary care physicians (although still too low). All of these improvements have provided an environment for improved levels and quality in facilities, medical equipment, environmental conditions, and most important the knowledge and professionalism of physicians, nurses and support staff.

Table 1. Key indicators of restructuring primary care

	2001	2002	2003	% change 2001-2003
I. General indicators[1]				
% of population enrolled with FGP	82.9%	97.0%	93.4%	12.8%
II. Organizational entities in primary care[2]				
# of FMC's	39	83	87	123.1%
# of FGP's	748	671	668	-10.7%
o/w independent juridicial entities	31	29	31	0.0%
III. Human resources in primary care (штатные единицы)[1]				
# of doctors	2,861	5,230	5,741	100.7%
# of doctors per 10 000 population	5.8	10.5	11.5	97.3%
# of nurses	5,420	10,003	11,358	109.6%
# of nurses per 10 000 population	11.0	20.1	22.7	106.1%
# of other staff	2,475	4,604	5,224	111.1%
# of other staff per 10 000 population	5.0	9.3	10.4	107.5%
Total # of staff in primary care	10,772	19,868	22,357	107.5%
Total # of staff in primary care per 10 000 population	21.9	40.0	44.6	104.1%
Total # of staff in health sector	49,371	50,202	51,087	3.5%
Total # of staff in health sector per 10 000 population	100.2	101.1	102.0	1.7%
o/w % in primary care	21.8%	39.6%	43.8%	100.6%
IV. Health expenditures for primary care[1]				
Total expenditures on primary health care (thous.som)	112,956	210,390	337,332	198.6%
Total expenditures on primary health care as share of GDP	0.2%	0.3%	0.4%	164.5%
Total expenditures on primary health care as share of total public health spending	15.4%	26.1%	33.1%	115.1%
Total expenditures on primary health care in real terms 2001=100 (thous.som)	112,956	206,265	320,774	184.0%
Total expenditures on primary health care in real terms per capita 2001=100 (som)	22.9	41.5	64.0	179.2%
Average salary of doctors (real terms) 2001=100 (som)	575	811	928	61.4%
Average salary of nurses (real terms) 2001=100 (som)	414	568	694	67.8%
V. Capital expenditures on renovation of primary care infrastructure and medical equipment[3]				
World Bank – renovations		113,030	17,972	
World Bank – medical equipment		26,160	441,431	
KSHRSP funded by SDC		29,420.00		
KFW (during period from 2001 to february 2005)	13 346 513,65 EUR; 46 060,38 $; 167 461,16 Dm			
Other				
V. Re-training in primary care[4]				
No of retrained FGP doctors (WB)		1,654	492	
No of retrained FGP doctors (republican budget)	0	0	65	
No of retrained FGP nurses (WB)		1,953	629	
No of retrained FGP nurses (republican budget)	0	0	85	
VI. Activity of primary care[2]				
# of visits	18,991,228	18,856,891	17,302,160	-8.9%
o/w curative	7,315,474	7,249,411	6,854,602	-6.3%
Curative visits as % of total	0.39	0.38	0.40	2.8%
Number of visits per person	3.85	3.80	3.45	-10.4%
# of policlinic visits	5,738,699	5,783,128	6,374,487	11.1%
Number of policlinic visit per person	1.16	1.16	1.27	9.2%

Source:
[1] **"Socium Consalt"**
[2] **NHIC**
[3] **World Bank, KSHRSP funded by SDC, KFW,** [4] **KSMI of CME/CPD**

B. Restructuring and Rationalization of the Hospital System

Another key reform area under Manas I was the major restructuring and rationalization of the system of secondary and tertiary care delivery. In the FSU, the hospital sector was highly developed with significant over-capacity both in terms of physical infrastructure and human resources. The hospital sector consumed 80-90% of available resources in the health delivery system. Numerous changes and improvements have been made over many years and were aimed at "down-sizing" the hospital sector. These changes included reducing the number of beds available, closing facilities, as well as strengthening the material-technical base of some facilities, including renovations, rehabilitation, providing new instruments and equipment, and improving management. All of these changes were made in order to improve quality of care while reducing the total costs by attempting to find the optimal mix of hospital facilities and services.

Table 2 below shows the main trends in downsizing and restructuring of the hospital sector.

- One of the major achievements of the restructuring and rationalization efforts has been the tremendous success in closing and consolidating building and the large reductions in the areas of occupied space required to operate the total health system. During 2001 to 2003, approximately 97 inpatient facilities were reduced, including 13 specialized hospitals and 84 general hospitals. The share of reorganized rural district hospitals to the total number of hospitals reduced made up 78,4%.

- The number of buildings reduced from 1464 to 784, a huge decrease of 680 buildings, with a resultant change of total operational area; these buildings of the inpatient service were reduced through demolition, conservation, rent, or transfer of other facilities including PHC.

- Over the same period, the personnel savings in staff of inpatient service have been reduced. The total staff structure reduced by approximately 25%; with the approximate number of doctors reduced by 32%, number of nurses by 30%, and number of supporting and other personnel by 19%. At the same time, the average salary of inpatient service has increased 39% for physicians, 38% for nurses and 33% for support personnel and others.

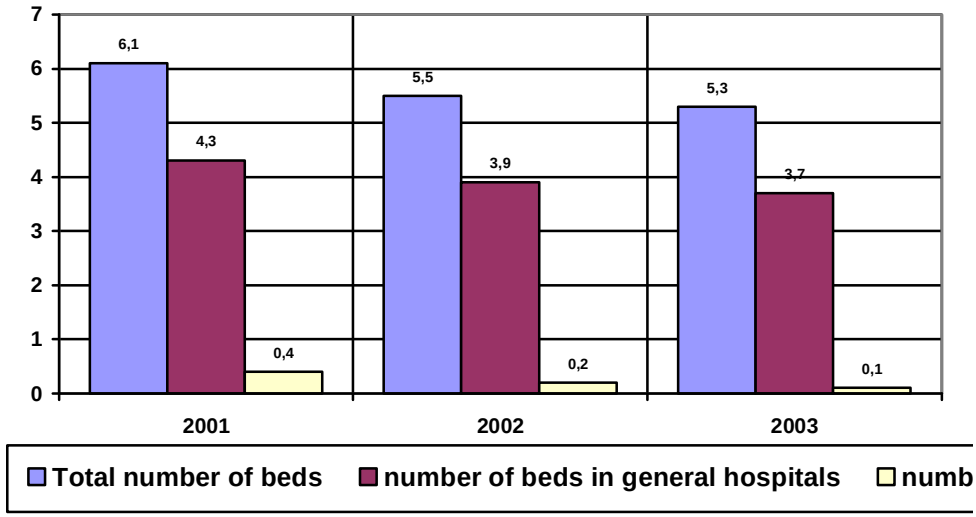
- During approximately the same period $2 050 387 of WB credit funds were used for renovation of buildings of 36 inpatient facilities and $2 099 431 of funds from the Kyrgyz-Swiss Health Reform Support Project were used for renovation of buildings of 5 hospitals.

- In coordination with the reduction in square footage and closing of buildings, there has been a major effort to improve utility expenses through improved planning and control processes, including major improvements in insulation methods and techniques.

- Over the same period, the ALOS reduced from 13.3 to 12.5 and bed turnover increased from 22.9 in 2001 up to 24.2 in 2003 signaling increasing productivity of the hospital sector.

Restructuring and rationalization of the secondary care sector shows remarkable progress. Over the three year period presented, there have been large reductions in the number of SUB's in rural areas, general hospitals and specialized hospitals in many oblasts, large reductions in the number of beds in hospitals, some reductions in the ALOS, some improvements in occupancies, significantly large reductions in the number of buildings operated by hospitals, some improvements in renovations and rehabilitation of a number of selected hospitals, some additional instruments and equipment, large reductions in staff, improvements in wages, large reductions in utility costs, and some reductions in operating costs (as %of total costs).

Figure 6. Number of hospital beds per 1 000 inhabitants



Source: NHIC

Table 2. Key trends in hospital restructuring

	2001	2002	2003	% change 2001-2003
I. Organizational entities[1]				
# of hospitals, total	252	175	155	-38.5%
including				
Specialized	58	46	45	-22.4%
General	194	129	110	-43.3%
including				
rural district hospitals	107	52	31	-71.0%
# of beds	30,313	27,447	26,594	-12.3%
# of beds per 1 000 population	6.2	5.5	5.3	-13.7%
# of buildings	1,464	784	784	
Total area (m^2)	709,988	429,127	429,127	
II. Human resources in hospital care (штатные единицы)[2]				
# of doctors	6,638	4,886	4,536	-31.7%
# of doctors per 10 000 population	13.47	9.84	9.05	-32.8%
# of nurses	16,439	12,347	11,592	-29.5%
# of nurses per 10 000 population	33.36	24.87	23.13	-30.7%
# of other staff	15,539	13,132	12,637	-18.7%
# of other staff per 10 000 population	31.54	26.45	25.22	-20.0%
Total # of staff in hospital care	38,662	30,398	28,796	-25.5%
Total # of staff in hospital care per 10 000 population	78.47	61.22	57.47	-26.8%
Total # of staff in health sector	49,371	50,202	51,087	3.5%
Total # of staff in health sector per 10 000 population	100.20	101.10	101.95	1.7%
o/w % in hospital care	78.3%	60.6%	56.4%	-28.0%
III. Health expenditures for hospital care[2]				
Total expenditures on hospital health care (thous.som)	619,955.59	597,128.70	680,433.30	9.8%
Total expenditures on primary health care and hospitals (thous.som)	732,911.34	807,518.60	1,017,765.20	38.9%
Total expenditures on hospital health care as share of GDP	0.84%	0.79%	0.82%	-2.8%
Total expenditures on hospital health care as share of total public health spending	84.59%	73.95%	66.86%	-21.0%
Total expenditures on hospital health care in real terms (thous.som)	619,955.6	585,420.3	647,033.4	4.4%
Total expenditures on hospital health care in real terms per capita (som)	125.8	117.9	129.1	2.6%
Average salary of doctors (real terms) (som)	848.08	1,019.62	1,125.46	32.7%
Average salary of nurses (real terms) (som)	574.69	686.97	752.80	31.0%
IV. Capital expenditures on renovation of primary care infrastructure and medical equipment[3]				
World Bank – renovations	1,348,186.67	643,549.34	58,651.88	
World Bank – medical equipment	0.00	41,293.00	1,952,173.00	
KSHRSP funded by SDC – renovations		2,099,431.00		
KSHRSP funded by SDC - medical equipment		416,268.00		
Other				
V. Hospital activity[1]				
Bed occupancy rate	83.3%	81.9%	82.7%	-0.7%
Bed turnover rate	23%	23%	24%	5.7%
ALOS	13.3	13.0	12.5	-6.0%
Hospitalization rate	14.5	12.7	12.8	-11.7%

Source: [1] NHIC, [2] "Socium Consalt", [3] World Bank, KSHRSP funded by SDC

C. Restructuring Hospital System at the Tertiary Level

Activities on restructuring and optimization of work of health organizations at the tertiary level were also implemented in the process of ongoing reforms. Currently there are twenty (20) research institutes, national centers and republican facilities of various specializations in the KR. While there have been some improvements in this area (as highlighted below), the Republican Centers in Bishkek and Osh have made little progress in restructuring and rationalizing beds, buildings, and personnel. In conjunction with the need to continue restructuring in the tertiary sector is the need to develop some selected tertiary services, including renovation and rehabilitation the existing material-technical base.

The following reorganizations have been implemented over the period from 2001 to 2004:

1) In certain oblasts specialized beds (TB, narcological, psychiatric) were transferred to Oblast Merged Hospitals.

2) The Republican Dermato-Venerology Dispensary was transferred to the Republican Infection Hospital.

3) The National Center of Pediatrics and Children Surgery was established through merger of two pediatric services (KRIOP and Bishkek Children Hospital).

4) The Maternity Hospital of the Kyrgyz Research Institute of Obstetrics and Pediatrics (KRIOP) was transferred to the balance of the National Hospital of the MoH.

5) Republican Centre of Mental Health was established.

6) The Research Institute of Cardiovascular Surgery and Organs Transplantation was established.

7) All urological beds of Bishkek have been concentrated on the base of the National Hospital of the MoH with establishment of the Republican Research Urology Centre (2002);

8) All traumatological beds of Bishkek were concentrated on the base of the City Emergency Care Hospital where Bishkek Research Center of Traumatology and Orthopedics has been established later on.

While some restructuring and rationalizations have occurred at the tertiary level, major changes have not been possible due to a lack of incentives and the lack of a pooling of funds and single payer system for city and republican facilities. Due to the early focus on improving primary care and the difficulties in rewarding restructuring at the secondary and tertiary levels, there is now a need to improve selected technology and selected programs at the tertiary level.

Table 3. Work of tertiary health organizations

Work of inpatient service (republican facilities)	years			% change 2001-2003
	2001	2002	2003	
Total number of hospitals	18	18	20	11,1%
Number of beds per 1,000	1,4	1,4	1,3	-7,6%
Bed occupancy	309,0	308,0	297,0	-3,9%
Bed turnover	14,6	15,0	15,0	2,7%
ALOS	21,1	20,6	19,8	-6,2%
Number of hospitalizations	103968	103334	100633	-3,2%

Source: NHIC

D. RESTRUCTURING THE PUBLIC HEALTH SYSTEM

The health system inherited from the FSU had a large, complex, and extensive system of sanitation and epidemiological services (SES). In European countries many of these SES activities have been integrated into primary care and public health functions coming under a variety of other organizational structures.

Restructuring in the public health system has been less extensive than in the health service delivery system and remains to be a task for the next phase of the Manas Reforms. However, important steps have been taken to begin the downsizing of SES and its laboratory system, as well as to separate the functions of health promotion and health protection. In addition, significant training activities have also taken place to begin modernization of public health activities. We briefly present some of the highlights of public health restructuring in this section.

(i) Separating the functions of health protection and health promotion. Starting in 2001, public health in Kyrgyzstan has been developing in two directions: health protection and health promotion. The Ministry of Health developed and approved the following two main documents: Concept for SES Service Reform and Development in the Kyrgyz Republic for 2001-2005 (January 11, 2002) and Health Promotion Concept for 2003-2007 (December 12, 2002).

(ii) Restructuring the SES laboratory system. The most significant steps have included the following:

- 2 out of 5 virusological laboratories have been closed.
- 120 virusologists, bacteriologists and laboratory assistants were trained on modern methods of laboratory researches. Training seminars on safe immunization practice were held for 293 nurses of maternal hospitals and vaccination rooms.
- Similarly, 4 radiologial laboratories were merged into 2.
- The structure of sanitary-hygienic and microbiological laboratories has also been downsized. As of today there are 34 primary (raion and city SSECCs) and 20 basic laboratories
- Modern laboratory equipment procured under the Health-2 Project funded by the World Bank facilitates quick and accurate implementation of laboratory researches.

(iii) Restructuring of SES units. The most significant steps have included the following:

- Functions of the National Plague Center have been revised transforming it into the National Center of Quarantine and Life Threatening Infections (NCQLTI).
- 75 epidemiologists were trained on issues of modern epidemiological control and role of FGPs/FMCs in epidemiological control system.

(iv) Health promotion service was created as an independent service of the MoH. At the central level the service is represented by the National Health Promotion Center (NHPC) and at oblast level – by Oblast Health Promotion Center (OHPC).

- Health Promotion Units were established under raion FMCs and FGPs (with juridical status) with the purpose to integrate health promotion service with primary health care. The Health Promotion Units will coordinate all activities on healthy lifestyle

promotion. The Health Promotion Units will play a key role in activation of local community encouraging organization of health committees in villages and on the other hand supporting FGPs in their work both with health committees and other rural organizations working in the field of health promotion.

- 200 health promotion trainers of oblast health promotion centers and raion/city FMCs were trained.

IV. Impact on Efficiency and Access

The previous sections described the main efforts under Manas I to restructure and reorganize the health care delivery system. In this section, we examine the impact of these changes on key health system performance measures. The major objective of restructuring was to improve efficiency in the health system while not compromising access to services. In this section, we evaluate the impact of restructuring on efficiency with which health services are delivered and on access to health care.

A. Efficiency Improvements

Efficiency in a health system is traditionally difficult to measure. Efficiency measures usually compare outputs in the health system (admissions, visits) with the inputs that produce them (staff, beds, money). To infer any kind of efficiency changes from these crude measures, we typically assume that quality remains constant. In the present Kyrgyz health system, we cannot safely assume this as practice patterns are changing and thus the resulting efficiency indicators have to be interpreted with caution. Documented changes may not signal a change in efficiency but change in the quality of services. We will use this caveat as a reminder several times below.

We have selected three indicators to assess efficiency trends both in primary care and in the hospital sector. These indicators are as follows:

- Savings on utility costs as a result of hospital restructuring
- Productivity of hospital care
- Allocative efficiency of health expenditures between primary and hospital care

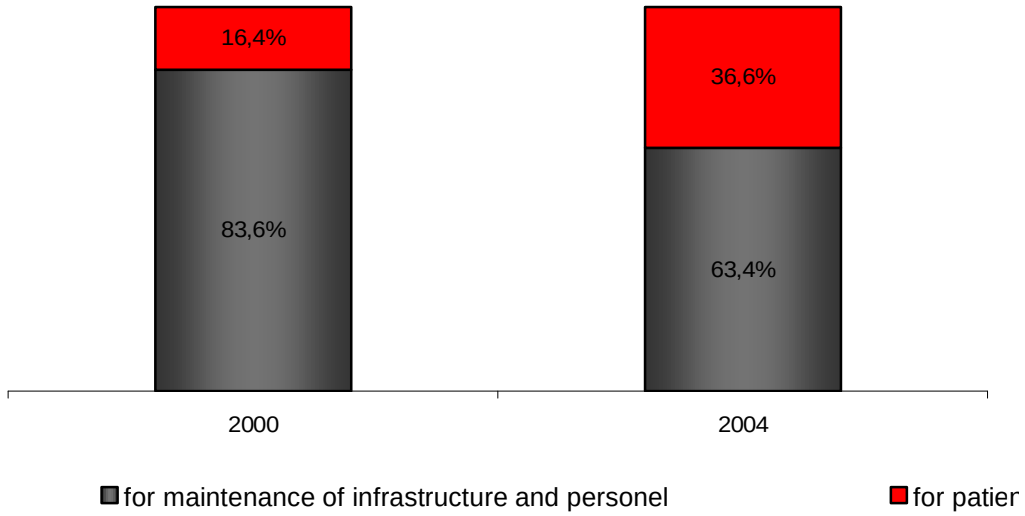
In the following sections, we show unequivocally that the efficiency of the Kyrgyz health system has improved over the 2001-2003 time-period. We conclude that restructuring was a necessary condition to achieve these efficiency gains.

1. Savings on utility costs as a result of hospital restructuring

One of the major achievements of the restructuring and rationalization efforts has been the tremendous success in closing and consolidating building and the large reductions in the areas of occupied space required to operate the total health system. In coordination with the reduction in square footage and closing of buildings, there has been a major effort to reduce utility expenses through improved planning and control processes, including major improvements in insulation methods and techniques.

Reduction in physical and human resource infrastructure allowed the health system to spend a greater share of scare resources on costs associated with direct patient care (drugs, medical supplies). Figure 7 below illustrates the distribution of health expenditures allocated to utilities and staff on the one hand, and to direct patient care in the other hand. Between 2000 and 2003, the share of health expenditures allocated to direct patient care expenses increased from 16.4% to 36.6%. This large reallocation of expenditures would not have been possible without significant downsizing the infrastructure of service delivery.

Figure 7. Share of health expenditures on infrastructure and on patient care 2000-2004



Source: MHIF

This finding is significant because as explained in the introduction, restructuring did not take place in a vacuum but was part of a larger systemic reform where various reform elements logically fit together. Restructuring, the resulting increase in direct patient care related expenses supported the introduction of the co-payment policy. It allowed hospitals to be better stocked with medicine which in turn reduced patient incentives to pay informally for drugs and to the doctors when admitted to the hospital.

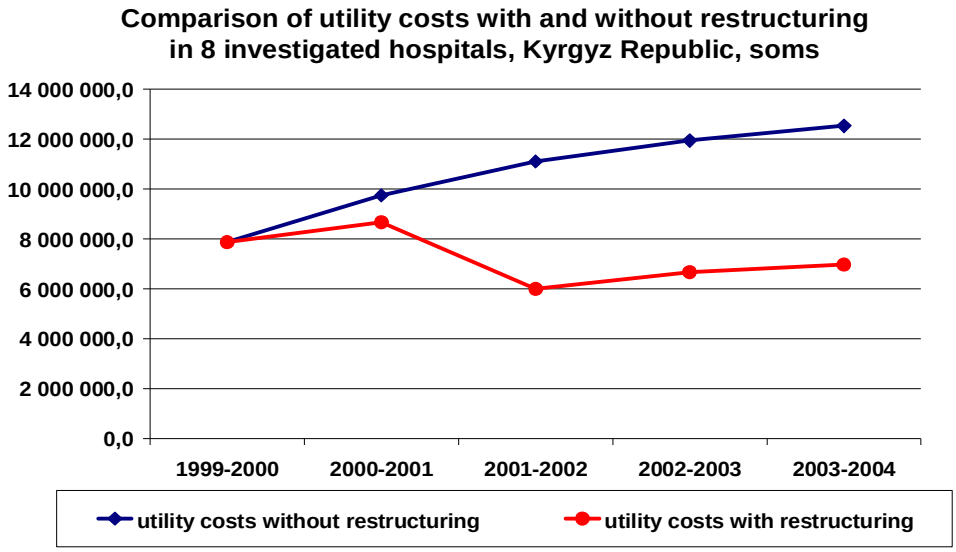
The previous figure on public expenditures under-estimates the true effect of restructuring on utility savings. This is because tariffs on main types of public utilities during this time-period have doubled for most types. Tariff increase counter-balances the effect of reduction in consumption of utilities resulting from restructuring. Since consumption of utilities is directly related to restructuring while prices of utilities are not, consumption is a better measure of the true effect of restructuring on utility savings.

To separate the consumption effect and the price effect, the WHO-DFID Health Policy Analysis Project conducted a study over 4 years in 8 hospitals in three oblasts where the restructuring process was the most advanced: Chui, Issyk-Kul and Naryn. These hospitals included Issyk-Ata TH, Sokuluk TH, Issyk-Kul TH, Ton TH, Kochkor TH, Jumgal TH, At-Bashy TH and Ak-Taly TH. Data was collected every year between 2000 and 2004.

The study documents significant savings from restructuring on utility expenses. (Figure 8) Actual utility expenditures of hospitals are shown in red. In blue, the graph shows what hospital expenditures would have been if restructuring had not taken place (in blue). We obtain the blue line using the consumption level observed before restructuring at increased prices prevalent in each period.

Restructuring of eight hospitals in three oblasts resulted in 10% reduction in utility expenditures during the last four years (as compared to 1999). Separating this figure into a price effect and a consumption effect, we find that if restructuring had not taken place and consumption of utilities had remained at the level of 1999, then expenditures for utilities would have increased on average by 44% during the four years and by 57% in 2004. This would have been caused by increased prices and tariffs for energy resources.

Figure 8.



Source: Checheibaev. 2004 "Savings from restructuring." WHO-DFID Policy Brief No. 6.

The HPAP study as well as the work of the KSHRSP supported by SDC show that savings are not just a result of downsizing but also improvement in the energy efficiency of heating, water/sewage, and lighting systems in hospitals. One major strategy in continued restructuring is the need to continue to improve the efficiency and cost reduction in the utilization of basic utilities including energy, water, and especially heating. The Manas I project and related work under the HPAP and SDC programs have shown that a clear strategy and allocation of new capital should be allocated to improving utility costs in all areas. There is a need to develop a long term capital plan that will assist in the identification and solution to the problem of building losing 70% of their heat due to poor on non-existent insulation. New insulation techniques (a mixture of clay and straw that is 7 times less expensive; new coal ovens as in Jumgal; and systems to use cheaper night electricity for heating) as developed under one of the SDC projects. There is a need for continued focus on reducing the amount of heat loss from old buildings, which should continue to be a priority. This activity should be part of the "unfinished agenda" and the continued improvement of the physical infrastructure. This could be a large area for savings and need donor involvement if it is to be successful.

2. Productivity of hospital care

Table 3 below presents some crude measures of hospital productivity. We excluded Bishkek city from the analysis because of the difficulty of separating various levels of care, corresponding structural, staffing, expenditure, and activity figures. We included

only those facilities in this analysis which operate as part of the Single-Payer system. The figures show that hospital productivity during the 2001-2003 time period increased by all measures. Although hospital admissions have declined, inputs of the health system declined further leading to increased productivity per bed and per staff.

Table 4. Hospital care productivity indicators for hospitals in the Single Payer system

	2001 Total (w/o Bishkek)	2003 Total (w/o Bishkek)	% change Total (w/o Bishkek)
1. Outputs			
# of admissions for hospitals in Single Payer system	552,067	452,117	-18.1%
2. Inputs			
# of beds	19,160	15,518	-19.0%
# of doctors	5,891	4,033	-31.5%
# of nurses	14,899	10,461	-29.8%
# of other staff	14,234	11,576	-18.7%
Total # of staff in hospital care	35,024	26,071	-25.6%
3. Productivity indicators			
Admissions per bed	28,81	29,14	1,1%
Admissions per doctors	93,7	112,1	19,6%
Admissions per nurse	37,1	43,2	16,6%

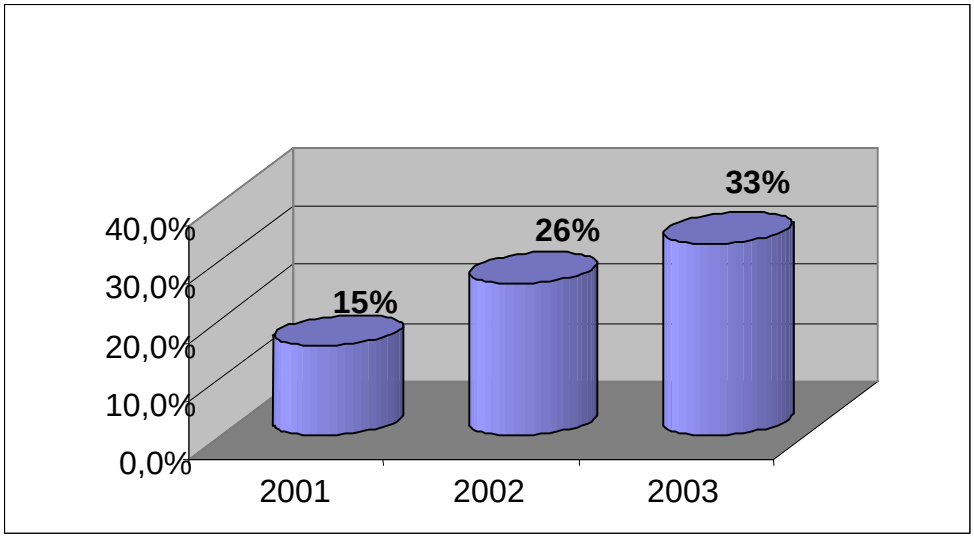
Source: NHIC

3. Allocative efficiency of health expenditures

Our final measure of efficiency changes as a result of restructuring looks at the distribution of health spending across levels of care, in particular between primary care and hospital care. At the start of transition, health care in Kyrgyzstan was hospital centered with lack of emphasis and focus on primary care and health promotion. The distribution of health expenditures reflected this orientation to health care: the majority of public funds were allocated to hospitals and in particular to specialized hospital facilities.

As figure 9 below shows, the share of primary care in total health expenditures doubled between 2001 and 2003 and increased from 15% to 33%. This increase coincides with the most intense time-period of restructuring and restructuring was a necessary condition to achieve this shift. Changing this balance in expenditures would not have been possible without downsizing hospital infrastructure.

Figure 9. Share of primary care in total public expenditures within the single payer system



Source: Socium Consult

In a companion paper, we also show that this shift toward primary care expenditures has resulted in significant savings for the health system through the additional drug package. We show that targeted funding for pharmaceutical treatment of primary-care sensitive conditions in outpatient settings can achieve great savings through reduction in hospitalization and improvement in patient care.

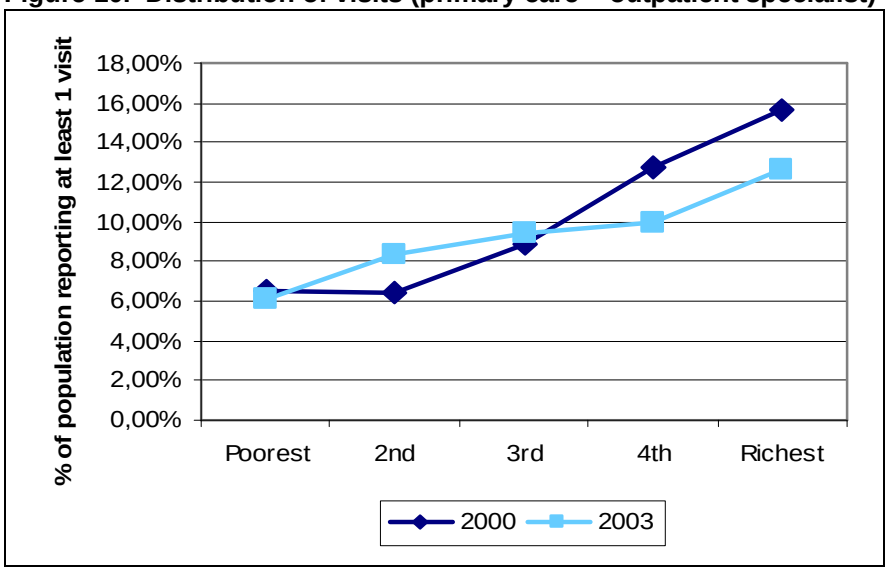
B. Improved Accessibility to Health Care

1. Access to primary care

As highlighted in previous tables, the total number of visits and hospitalizations have reduced in Kyrgyzstan over 2001-2003. As discussed before, this is a desirable effect if this reduction affects mostly inappropriate utilization. However, many are concerned that restructuring and the introduced co-payment policy have created access barriers for the poor reducing both medically indicated care and inappropriate care. We utilized the 2001 and 2004 household survey of the National Statistical Committee to examine the presence of access barriers by assessing the change in the distribution of utilization that took place during the time-period restructuring. Detailed findings on this issue are presented in a companion paper (Jakab et al.2005 "Who benefits from the Kyrgyz Single-Payer System: Analysis of the incidence of Public Expenditures" Forthcoming)

The dark line below shows the distribution of outpatient visits (primary care + outpatient specialist care) by expenditure quintile. It shows that in 2001, the richest 20% of the population used outpatient services more than twice as frequently as the poorest 20% of the population. There was significant socio-economic inequality in the distribution of utilization. By 2003, the visit rate dropped but it dropped uniquely among the richer half of the population. The poorest and third quintiles experienced no change in their rate of visits, and we see a significant increase in visit rate for the second income quintile. On the whole, the distribution of utilization is showing a remarkable increase in socio-economic equality over the time-period.

Figure 10. Distribution of visits (primary care + outpatient specialist)



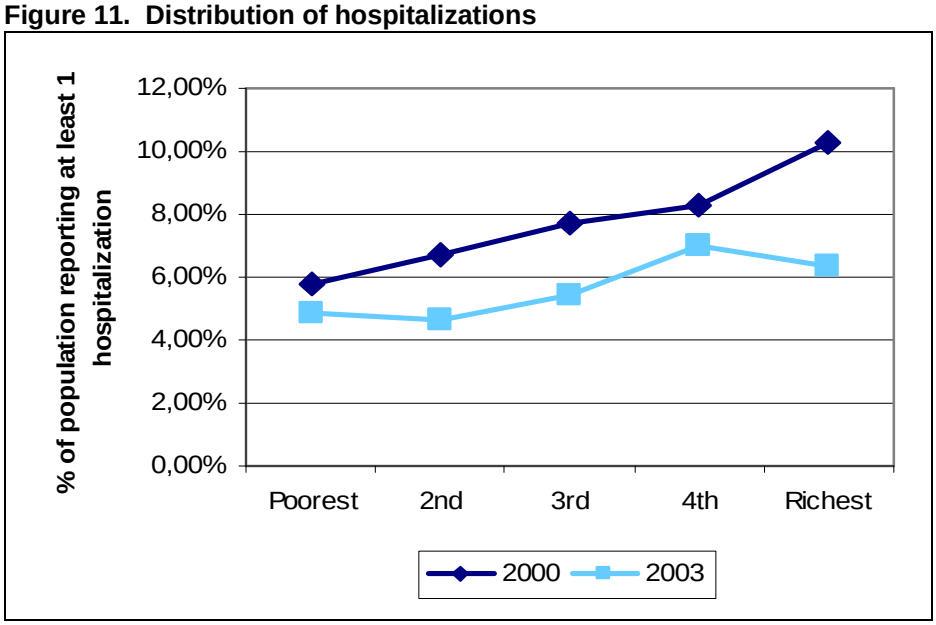
Source: Jakab et al. 2005. (Jakab et al.2005 "Who benefits from the Kyrgyz Single-Payer System: Analysis of the incidence of Public Expenditures" Forthcoming), WHO-DFID HPAP

We conclude based on this graph that access to primary and outpatient specialist care did not deteriorate for the economically vulnerable during the time period in which restructuring took place.

2. Access to hospital care

Figure 11 below shows changes in the distribution of hospitalization rate. The dark line is for 2001 and again shows the presence of significant socio-economic inequalities. The richest 20% of the population used hospital care nearly twice as often as the poorest 20%. By 2003, the distribution of hospitalization rate has become more equal. The rich are using hospital care only slightly more frequently than the poor.

Figure 11. Distribution of hospitalizations



Source: Jakab et al. 2005. (Jakab et al.2005, "Who benefits from the Kyrgyz Single-Payer System: Analysis of the incidence of Public Expenditures" Forthcoming), WHO-DFID HPAP

Utilization rate of hospitals declined for all socio-economic groups. For the poorest, it declined only marginally while it declined by 40% for the richest. We also see significant reduction in hospitalization rate for the middle quintile. While this findings needs to be further examined, it does not seem to signal significant increase in access barriers for the poor. If financial access barriers were present, hospital utilization would have declined by a greater extent for the poor than for the rich. A much more likely explanation than access barriers to explain these findings is the changing treatment patterns of doctors. The new treatment modalities may be less reliant on hospitalization and more reliant on outpatient care and pharmaceuticals.

As mentioned earlier in the process of restructuring many redundant rural hospitals were transformed into FGPs or structural subdivisions of territorial hospitals. The share of reorganized rural district hospitals to the total number of reduced hospitals made up 78,4%. Given that restructuring of rural district hospitals stipulated reduction of beds and health personnel it was important to preserve accessibility of population to health services along with achievement of certain economy of funds. In connection with this a survey was implemented in separate region to define impact of SUBs restructuring on accessibility of rural population to basic health services (HPAP, WHO/DfID). As a result of the survey it was revealed that transformation of SUBs into FGPs and structural sub-divisions of territorial hospitals actually had not impact on accessibility of population to therapeutic and pediatric services. The obstetrics service turned out to be the most sensitive to the restructuring process that resulted in opening of additional delivery beds. On the whole by 2003 accessibility to all types of health services remained at the same level as before transformation of SUBs.

V. Lessons Learned

Many helpful lessons have been learned under Manas-I with regard to restructuring and rationalization activities.

Restructuring was a response to the "Reform Imperative" – recognizing that not restructuring is not an option in the context of limited public funds. The goals of the Manas health reforms included improvement of financial protection, improvement of geographical and socio-economic inequalities, and optimization of treatment methods to achieve better health outcomes. These goals, however, were out of reach in the context of limited and declining public resources. Thus, addressing inefficiencies and achieving significant savings was a precondition for further improvements of other health system goals. We believe that a key lesson from the Kyrgyz reforms was that not restructuring was not an option because the existing health system was not financially sustainable.

Restructuring was one aspect of a broader health system change: appropriately sequenced financing reform is critical to create the right set of incentives for downsizing, and increased provider autonomy was essential to enable the facility managers to respond to these incentives. Restructuring was successfully implemented in the Kyrgyz context because it was a component of a broader health system reform and not a stand-alone effort. Health financing reform, in particular, was a key for the success of restructuring to ensure that facilities had the right incentives to downsize. Without incentives at all levels of the health system for reform, the various stakeholders in the process can not implement the necessary changes in the system to bring about cost reductions, quality improvements, or increases in access to services. The health financing reforms involved creating oblast level single payer purchasing pools. This reduced the previous fragmentation among financing pools and increased the purchasing power of the financial intermediary. Through output based purchasing, the financing reforms created the appropriate incentives for providers to worry about efficiency, and increased autonomy gave them the means to respond.

Restructuring leads to measurable efficiency gains but investment in energy-efficient mechanism is of key importance. One major strategy in continued restructuring is the need to continue to improve the efficiency and cost reduction in the utilization of basic utilities including energy, water, and especially heating. The Manas I and related work under the HPAP and SRC programs have shown that a clear strategy and allocation of new capital should be allocated to improving utility costs in all areas. New insulation techniques, as developed under one of the SRC projects, and a continuing focus on reducing the amount of heat loss from old buildings should continue to be a priority.

Attention has to be paid to building stakeholder participation and commitment
The type of restructuring reforms that have occurred in the Kyrgyz Republic cannot happen without the support and commitment of key stakeholders (members of oblast health departments, local governments, doctors, research scientists and consumers). From the inception of the MANAS health reform program, the MOH, as the leader in the process continually engaged a wide-range of stakeholders. Consequently, when the

reforms began, it was not a complete surprise. However, building stakeholder participation and commitment has been an ongoing throughout the reform process.

There was no "Magic Bullet" – success required a comprehensive approach involving multiple reform instruments. Another important lesson the Kyrgyz Republic provides is that there are no "magic bullet" solutions in the health sector, and in order for health reform to reap the desired benefits, it has to be comprehensive in nature and look at the health system as a whole. In the Kyrgyz Republic, development of the MHIF has been combined with selective but high impact investments in the health care delivery system, especially in establishing a new way of delivering primary care, integrating this new model to reforms at the secondary and tertiary care level to provide a continuum of care, giving autonomy to facilities and building the capacity of facility managers.

Successful Piloting can be an effective implementation mechanism and can help build capacity and stakeholder support. The Issyk-kul Intensive Demonstration Site provided an opportunity for the basic health reform model to be developed. Many of the early adjustments and fine-tuning of the reforms already took place in Issy-Kul. Also, Issy-Kul became a visible symbol of reform, and greatly helped the expansion of these reforms to other parts of the country, especially in the further expansion of the FGP model. Issyk-Kul continues to serve as a demonstration site for the country as the reforms here have been deepened over time. For example, the inpatient co-payment policy was first implemented in Issy-Kul and Chui (another oblast where the reforms have been ongoing for at least 5 years).

Strong donor and project collaboration. Donor presence in the health sector is strong in Kyrgzytan. However, the experience from other high donor dependent countries indicates that donor support is often fragmented and overlapping, which means that often the health sector does not benefit from donors support as much as it should and there are few results to show at the end of a long period of donor support. This was not the case in Kyrgyzstan where donor collaboration is strong and more importantly, the MOH coordinated the donors. The MOH could be in the "driver's seat" because there was a clear sector strategy that facilitated a unified approach.

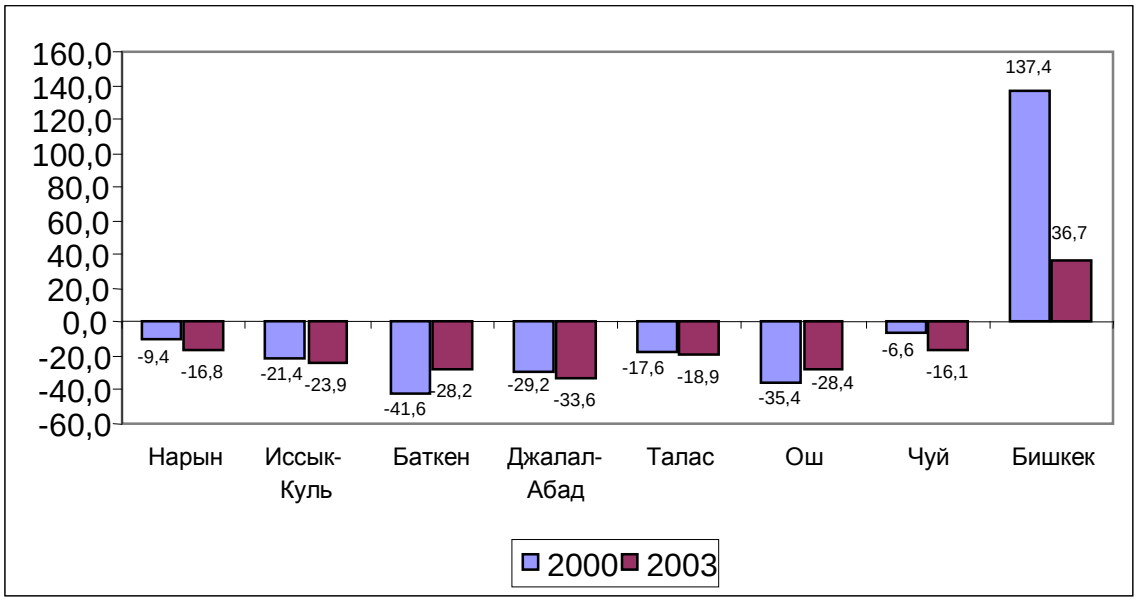
VI. Unfinished Business Manas I and Agenda for Manas II

During this review of Manas I restructuring and rationalization activities, there is a need to document the areas that continue to present a challenge for the coming years, and to identify which of these activities needs to be dropped or carried over to Manas II. Outlined below is a discussion of these major areas:

1. Addressing Regional Inequalities

One remaining key challenge for the health sector is to improve the imbalance in the regional allocation of resources. There has been significant regional inequality in health care financing and this inequality did not improve over the previous years. Figure 12 shows that in 2000, per capita health expenditures were 2-4 times high in Bishkek than in other oblasts of the country and approximately 1,5 times high than on average nationwide. It should be noted that excess of the funding level as against average nationwide level was observed in Bishkek only. By 2003 the funding gap in Bishkek as against average nationwide level significantly decreased but still exceeded the latter by 37%. It is often argued that the reason for this inequality is the tertiary medical facilities located in Bishkek that serve the entire country. Various WHO surveys and the research of other organizations show that this is an incorrect assumption: tertiary facilities mostly serve the population of Bishkek and Chui oblast as the poor are too poor to afford travel costs and other costs associated with getting treatment in tertiary facilities. Progress with restructuring and rationalization of excess capacity in Bishkek and Osh is a precondition for more equitable allocation of funds in the future.

Figure 12. Regional inequalities in the distribution of health care resources (% deviation from the national per capita average in 2000-2003).



Source: WHO-DFID HPAP. 2004. PB#7.

In order to improve regional equity, the difficult process of reducing secondary and tertiary level costs should be continued through rationalization and restructuring including continued reduction in hospital beds, reducing the ALOS, improving occupancy levels, and closing redundant facilities, buildings, and services. As previously discussed, this process needs to continue, as the major area of little progress has been the restructuring and rationalization of beds, buildings, and personnel in Bishkek City (both Republican and City facilities), and Osh City/Osh Oblast, as well as the redistribution of funds from Bishkek to the rural oblasts, if this is still desirable or possible in the new environment.

2. Ensuring that Savings from Restructuring are Re-invested in Improving the Health System

As we showed in this study, hospitals that have downsized saved up to 40% on their utility expenditures over the past 4 years. These savings can be used for drugs and medical supplies as well as to increase salaries of medical staff. This reduces the need that people pay out of their pockets for these items and services. However, if budgets decline for those areas where restructuring has taken place, then efficiency gains are taken away from the health sector, there will not be greater availability of drugs, supplies and salaries will not increase. Thus, the direct implication of declining budgets will be an increase in out-of-pocket payments, increase in under-the-table payment to medical personnel and overall increased financial burden on households. As previously discussed the incentives for restructuring at the local levels have been reduced over the last few years and restructurings in rural areas have essentially stopped due to a lack of incentives for generating and retaining savings in both budget and MHIF funds at the local level. This should be a new priority under Manas II.

3. Continuing Improvements in Secondary and Tertiary Care

Under Manas I only minimal improvements in the material- technical base of the secondary sector have occurred (relatively few hospitals were rehabilitated) and very minimal improvements were made in the tertiary sector (mostly some equipment). Under Manas II it is now time to develop a serious plan to improve both the secondary and tertiary health system. This will mean capital funds for rehabilitation, renovation, instruments, basic equipment improvements, and new high technology equipment and services. These improvements should be coordinated with restructurings of beds, buildings, equipment, personnel, and services in these sectors especially in Bishkek and Osh. The process of improved utility savings due to better techniques of insulation, energy usage, and alternative energy sources should be continued, and will need addition capital investment if it is to be successful.

Further improvements in efficiency can be mostly expected from making progress with the restructuring of hospital sector in Bishkek and Osh cities. This means to rethink the organizational configuration of service delivery in these areas and reducing physical infrastructure as necessary. In addition, right-sizing personnel budgets and reducing actual and budgeted positions would also be helpful. Successful restructuring in Bishkek and Osh will require completion of pooling reforms in Bishkek and Osh to create the conditions for successful restructuring in these areas

4. Continuing Improvements in Primary Care

A large part of Manas I and the related Health I and II projects have focused upon improvements in the primary care system of delivering services. The successes in this area have already been documented, but continuing these reforms is critical to improving the quality of services and the access to services at the primary level. Continuing to improve the material-technical base in FGP/FMC's is most important. Ensuring rational use of available resources (medical instruments, clinical laboratory-diagnostic equipment, drugs and pharmaceuticals, et al.) will continue to be important. While significant progress has been made in improving the integration of health promotion, public health, and primary care service delivery, it is necessary to further define these functions and develop and implement strategies for public health reform under an integrated health care delivery system. It is necessary to develop clear legal framework on mixed consultations in city FGP's/FMC's in order to provide cost effectiveness of training of FM specialists. Continuing implementation of EBM clinical protocols that have both a positive clinical and economic effect needs ongoing support under Manas II.

5. Continuing the restructuring of SES and Public Health Activities

Restructuring of SES activities including equipment, facilities, personnel, and functions was initiated under Manas I. The development of a new National Health Promotion Center and the integration of some health promotion and public health activities into the primary care delivery system has been a major achievement, and needs to continue under Manas II. The continued restructuring and rationalization of SES, with the development of a modern public health function should be a major priority under Manas II. A critical precondition for this, however, is to resolve how to keep savings from downsizing in the SES system. Without resolving the re-investment issue, there will be no incentives for SES to restructure.

6. Continuing HRM improvements at all levels

Continuing the successes in Human Resources Management (HRM) should be a high priority under Manas II. While the many oblast have had excellent progress in right-sizing personnel budgets and reducing actual and budgeted positions, little if any progress has been documented in Bishkek or Osh. Developing an analysis of the surplus of narrow specialists and various work related issues has been completed under Manas I, but no permanent solution has been found. Human resources and related costs are the majority of costs in any health system, and continuing to improve these costs should be a major priority. The large savings in redundant positions, the reduction in actual staffing in some areas, the reassignments of specialist to primary care and family medicine, and the improvements in salaries for all staff over the period of Manas I have demonstrated the effectiveness of investing funds in HRM activities. The continuing focus of resources and donor efforts under Manas II into further improvements in human resources management areas should be a high priority.

APPENDIXES

Appendix #1

Management and organizational changes

In order to effectively implement Manas I, a number of management and organizational changes were necessary. These changes have occurred over many years and are the result of efforts and assistance of a number of stakeholders. While most of these reforms have been highly successful, some of them have been slow to be implemented, are not complete, and will need to carry over into Manas II. Outlined below are the major changes that have been implemented under Manas I:

1) Significant work on improvements of the legal health framework has been implemented, and the following laws have been approved: Law of the KR "On Population Health Protection in the KR" (new redaction of November 2004) which defines legal, economic and social base of health sector functioning; Law of the KR "On the Single Payer System in Health Financing of the KR" (of July 30, 2003) regulating implementation of new financing system in health organizations; Law of the KR "On Health Organizations in the KR" (of August 13, 2004) regulating public relations evolved due to health organizations' activities; as well as other Government Resolutions regulating health restructuring activities.

2) Major institutional reforms have been implemented at all health levels, including inside the Ministry of Health, where a Primary Health Care Unit was established in 2001.

3) In the framework of the Kyrgyz Government decentralization policy the following independent structural subdivisions were established under the MOH: Drug Department, State Sanitary and Epidemiological Control Department (SSECD) and Department of Health Care Reforms (DHCR), and part of MOH's authorities were delegated to these subdivisions.

4) There was clear subdivision of health sector into health providers and health purchasers. The Mandatory Health Insurance Fund created in 1997 is a purchaser of health services and plays a role of the Single Payer since 2001.

5) In 2001-02 there was clear subdivision of health providers into those who provide out-patient (or primary) health care (FMCs/FGPs) and those who provide inpatient service with opening of health out-patient departments (HOPDs) under hospitals. The main purpose of HOPDs organization was joint rational use of the available laboratory-diagnostic equipment (by PHC and hospitals) as well as involvement of hospital specialists into the process of consultative services delivery to population.

6) Major activities for the reorientation of health care delivery system from an "inpatient" oriented service to an "outpatient" primary care oriented service have been implemented under the Health I and Health II Projects. Significant efforts

and resources have been focused into work in rural areas to support and expand the FGP practice nationwide, including the establishment of a Family Group Practice Association (FGPA) and a Hospital Association (HA).

7) In 2001 the MOH decided to create Family Medicine Centers (FMCs) in order to coordinate and manage work of FGPs located in the certain administrative territory, which included an opportunities to form a unified health information system.

8) According to the Unified Health Information System Development Concept for (2001-2010) oblast health information centers were established at oblast levels. These centers are located on the base of TD's MHIF and use unified computer systems. Raion health information centers (HICs) are located in FMCs.

9) The Oblast Health Departments were abolished by the Government Resolution in 2000. Abolishment of Oblast Health Departments was part of administrative reforms implemented in the KR., and the responsibility for overseeing oblast health activities has been taken up by an Oblast Health Committees.

10) A number of Non-Governmental Organizations (NGO's) have been established, including a Family Group Practice Association (FGPA), a Hospital Association (HA), a Medical Accreditation Commission (MAC), and a National Center for Health Promotion (NCHP), all of which are meant to supplement some of the traditional MOH functions and activities.

11) Significant changes occurred in the field of population provision with drugs due to denationalization and privatization of the pharmaceutical sector. The Law of the KR "On Drugs" and National Drug Policy have been developed. The Rational Drug Use Concept has been implemented in accordance with WHO recommendations. The Essential Drugs List is being regularly revised and re-approved.

12) Clinical protocols and new norms and standards are being introduced into FGP practice to improve quality assurance and delivery of efficacious health services.

13) The MOH, jointly with specialists of DHCR, HPAP, HA and FGP, performed a survey to analyze the work of the "narrow specialists" in FMCs and HOPDs. The report including recommendations has been produced. The large number and various types of "narrow" specialists in the PHC service has prevent the further development of family medicine concepts, as noted by Mr. Kees Shapveld, International SRC Consultant on PHC Reform. At this stage of health reforms the retrenchment of narrow specialists in FMCs has not been possible. This problem is connected with the Law of the KR "On Universal Military Service" (approved on December 16, 1992) in pursuance of which the MoH should provide full medical examination of all conscripts.

14) Currently specialized types of health services are being gradually integrated into PHC services. Reform of SES has begun, including strengthening and modernization of the bacteriological services. The process of integration of anti-epidemiological service into FMC activities and prevention and treatment of STI in FGP practice has started. Functional duties of FGP's now include: health

promotion issues, activities on improving TB, ARI, and management of illnesses accompanied by diarrhea, as well as activities on reproductive health promotion.

15) The MHI Supplementary Package is being implemented to ensure economic accessibility of the population to drugs. The State Benefits Program is being implemented at FGP level, although it is not regularly and adequately financed.

16) One major accomplishment of restructuring and rationalization of the hospital sector, was the reorganization of ineffective small hospitals into more effective facilities, merger of specialized facilities and creation of general hospitals. In 2001 the MoH, jointly with heads of health facilities, developed plans for restructuring of inpatient facilities based on reduction of redundant and ineffective facilities which could not meet modern technical standards. The restructuring plans were approved by the World Bank before the Health II Project came into effect.

17) Significant work on the revision of normative documents regulating the process of reforms at primary level is being accomplished under the Health II Project. The regulatory base is being brought into line with the process of reform in inpatient service. Work on revision of the existing legal base should be continued.

18) The Council on SES Reform was established under the Chief State Sanitary Doctor of the Kyrgyz Republic, and a new standard provision on the State Sanitary-and-Epidemiological Control Center (SSECC) has been developed, and in connection with this new provision, all of the oblast, city and raion SESs were renamed as SSECCs. Six new laws in the field of public health have been approved and about 70 sanitary norms and rules have been issued.

The National Health Promotion Center as well as oblast health promotion centers (OHPCs) and health prmotion rooms (HPRs) at raion level were established. The HPRs are functioning on the base of FMCs and will be provided with the equipment needed for work with population on healthy lifestyle issues.

Appendix #2

Data sources

A major effort of this paper consisted of reconciling several sources of data and information on restructuring. Several agencies collected and kept track of various aspects of the restructuring efforts but some of the sources were incomplete, others were inconsistent. IN this appendix, we describe the major data sources available on key indicators and we provide rationale for the selection of one source over the other for this study.

The main sources of data useful for this study included the following: National Health Information Center (NHIC), Socium Consult, DFID-funded Health Human Resources development Project, Hospitals' Association, FGPA, DHCR, etc.

A) Number of buildings, area, consolidated budget and actual expenditures.

The indicators were monitored by HA and Socium Consult.

	Number of buildings	**Area**	**Consolidated budget**	**Actual expenditures**
HA	Only buildings used by the hospital were taken into account;	No data on areas;	No data;	Actual expenditures (paid accounts) were taken into account;
Socium Consult	All buildings being on the balance of the hospital (conservation, rent, etc.) were taken into account;	Data on areas are available;	Data are available;	Data on rendered accounts (paid accounts+ arrears) were taken into account;

Taking into account fullness of data on the above mentioned indicators it was decided to use materials of the Socium Consult. Note: **-** in materials of the Socium Consult data of 2002 are identical to data of 2003 and therefore data of 2002 were not included into the reports on buildings and areas. The data can be available if necessary.

B) Salary

Indicators were monitored by HA and Socium Consult.

	Calculation of salary	**Staff**	**Average salary by category**
HA	-Indicators by hospitals; -Indicators of actual wage fund;	Occupied positions were taken into account	Below are data on 4 categories
Socium Consult	-Indicators on hospitals, PHC and SES; -Wage fund data were taken into account	Staff number was taken into account	Above are data on 4 categories (supporting and other staff as one line)

Calculations and data of Socium Consult were taken as a basis since they included data on PHC and SES while Hospital Association only tracked data of salaries of hospital-based health care workers.

C) Activity of inpatient and outpatient services

Data of the NHIC were used as they are official final figures nationwide except when otherwise indicated in the tables.

D) Data on staff

	Staff
Socium Consult	-data for 2001-03. -staff number on 3 categories (supporting and other staff) were taken into account; -no data on occupied positions and physical persons; -staff is divided into: 1.hospitals (without taking into account specialized hospitals: TB, oncological, etc.) 2. PHC (FGP doctors + narrow specialists); 3.SES;
DFID-funded Health Human Resources development Project	-Source: NHIC; -data for 2000-03; - staff number, occupied positions and physical persons on 4 categories; -staff is divided into: 1.hospitals (all facilities with beds including specialized hospitals) 2.PHC (FGP doctors + narrow specialists); 3. other (stomatologists, dispensaries without beds, SES, HPC, AIDS, etc.); -staff of educational institutions were not taken into account;
FGPA	-data of single monitoring (from late 2002 to 2003 inclusive); -PHC staff; - staff number, occupied positions and physical persons on 4 categories; -data on staff composition;
HA	-data for 2001 and 2003; -staff of hospitals; -staff number, occupied positions and physical persons on 4 categories; -data for 2001: no division of staff into staff of THs and FMCs.

1. DFID data were used in general section as they give the fullest picture nationwide.
2. Data of Socium Consult were taken as a basis in the reports by oblasts as they are connected with data on salary.

Annex #3

List of normative - legislative documents on health care delivery restructuring

Data	*Order №*	*Executor*	*Contents*
18.01.00	8	Administrative Department	On reorganization of oblast health departments
09.02.00	24	Chief Health Care Department	On restructuring of health care facilities of Batken oblast
09.02.00	25	Chief Health Care Department	On standard provision on oblast merged hospital
22.04.00	123	Organizational Work and Human Policy Department	On transfer of the gynecological hospital to the Perinatal Center
27.04.00	134	Chief Health Care Department	On reorganization of the allergic service of the republic
04.05.00	138	Chief Health Care Department	On organization of the Republican Mental Health Center/ MoH
03.06.00	177	Chief Health Care Department	On rationalization of work of the republican TB facilities
30.06.00	221	Chief Health Care Department	On introducing amendments into the MoH Order #177 of 03.06.00 № 177 «On rationalization of work of the republican TB facilities”
21.08.00	272	TCU	On further health reform implementation in the KR
23.08.00	275	Chief Health Care Department	On monitoring of rational use of drugs in hospitals and propriety of hospitalization of patients
30.08.00	284	Chief Health Care Department	On transfer of buidlings from the balance
26.09.00	322	Organizational Work and Human Policy Department	On introducing contractual base for hiring of health managers
29.09.00	333	Chief Health Care Department	On introducing amendments into the MoH Order #177 of 03.06.00 № 177 «On rationalization of work of the republican TB facilities”
05.10.00	341	Organizational Work and Human Policy Department	On updating of the National database on personified registration of health personnel
02.11.00	374	Chief Health Care Department	On rationalization of the bed fund

Data	*Order №*	*Executor*	*Contents*
14.11.00	378	DHCR	On conducting a workshop on development of plan for retsructuring and rationalization of inpatient service of Chui oblast
24.11.00	398	Drug Department	On preliminary results of simultaneous inventory of medical equipment
27.11.00	399	DHCR	On conducting a workshop on development of plan for retsructuring and rationalization of inpatient service in Issyk-Kul and Naryn oblasts
06.12.00	413	Organizational Work and Human Policy Department	On approval of the provision “On mechanisms of updating of the Nationla database on personified registration of health personnel”
19.12.00	425	TCU	On conducting a workshop on development of plan for retsructuring and rationalization of inpatient service located in Bishkek
28.12.00	436	Chief Health Care Department	On close of the Kyrgyz Research Institute of Obstetrics and Pediatrics
19.01.01	13	Chief Health Care Department	On merger of consultation polyclinics of the National Hospital
24.01.01	19	TCU	On conducting a workshop on development of plan for retsructuring and rationalization of inpatient service in Talas oblast
24.01.01	22	Chief Health Care Department	On creation of independent reproductive health protection facilities in Issyk-Kul oblast
14.02.01	39	TCU	On conducting a workshop on development of plan for retsructuring and rationalization of inpatient service in Jalal-Abad oblast
15.02.01	40	DHCR	On the Family Medicine Center
26.02.01	54	Chief Health Care Department	On introducing amendments into the MoH Order of 20.06.00 «On PHC delivery to population»
14.03.01	77	MHIF	On execution of the Program for restructuring of health system of Chui and Issyk-Kul oblasts for 2001
15.03.01	81	TCU	On conducting a workshop on development of plan for retsructuring and rationalization of inpatient service in Osh city and Batken oblast
23.03.01	89	Department of Health Services Organization and Licensing	On reorganization and restructuring of children mental health hospital in Ivanovka village of Issyk-Ata raion
02.04.01	101	TCU	On the Family Medicine Center
17.04.01	120	TCU	On conducting a workshop on restructuring of out-patient-polyclinic facilities and OMHs
11.05.01	147	DHCR	On organizational measures on formation of new health structure in raions of Chui and Issyk-Kul oblasts
18.06.01	215	Department of Health Services Organization and Licensing	On the National Oncology Center under the MoH

Data	*Order №*	*Executor*	*Contents*
05.07.01	243	Department of Health Services Organization and Licensing	On Hospital Out-Patient Departments
04.10.01	339	Department of Health Services Organization and Licensing	On expansion of functions of the HOPDs
30.11.01	420	Department of Health Services Organization and Licensing	On reorganization of the Aidarken numbered hospital and Perinatal Center into affiliate of Batken OMH and Kadamzhai raion FMC
06.02.02	52	Department of Health Services Organization and Licensing	On creation of the Committee on development of the order of use of released health objects
26.03.02	108	Department of Health Services Organization and Licensing	On approval of the provision “On facilities delivering inpatient mental health care”
16.07.02	296	Department of Health Services Organization and Licensing	On change in accommodation of the Republican Dermato-Venerology Dispenser and Republican Narcology Center
19.07.02	303	Department of Health Services Organization and Licensing	On structure of health facilities of Naryn and Talas oblasts
19.07.02	305	Department of Economy and Financial Policy	On limits of use of electric and heat energy by MoH budget organizations for 2002
25.07.02	311	SSECD	On restructuring of the material-and-technical base of health facilities of Jalal-Abad and Talas oblasts
28.10.02	440	Department of Health Services Organization and Licensing	On establishment of oblast FMCs in Jalal-Abad and Batken oblasts
10.01.03	3	Department of Health Services Organization and Licensing	On organization of management and coordination of work of health facilities at oblast level
15.01.03	10	Department of Health Services Organization and Licensing	On licensing of private medical practice in the KR
28.02.03	68	Department of Health Services Organization and Licensing	On regulation of medical practice by managers of government health facilities
19.03.03	93	Department of Health Services Organization and Licensing	On Osh city FMCs

Data	*Order №*	*Executor*	*Contents*
02.04.03	109	MHIF	On further restructuring of separate health facilities working in new financing conditions
20.05.03	187	Department of Health Services Organization and Licensing	Kyrgyz Research Institute of Balneology and Medical Rehabilitation
29.07.03	319	Department of Health Services Organization and Licensing	On restructuring and rationalization of neurosurgical, neurological and orthopedic beds in Bishkek hospitals
31.07.03	326	Department of Economy and Financial Policy	On write-off of buidlings of the affiliate #1 of the Republican Mental Health Center, Chym-Korgon
23.10.03	459 460 4 61	Department of Economy and Financial Policy	On transfer of equipment
17.11.03	510	Department of Health Services Organization and Licensing	On restructuring of the bed fund of the National Hospital, City Clinical Acute Care Hospital and City Clinical Hospital #1
27.11.03	524	NHIC	Main changes of statistic reporting
26.12.03	584	NHIC	On regulation of maintenance of primary reporting/accounting documentation in inpatient health facilities

Appendix #4

Further data on primary care restructuring

Table A.4.1 Number of FGP's and FMC's by Region

Regions	FMC			FGP			Including FGPs with juridical status		
	2001	2002	2003	2001	2002	2003	2001	2002	2003
Naryn oblast	1	6	6	59	45	45	0	0	0
Talas oblast	1	5	5	31	27	27	10	9	9
Batken oblast	4	5	8	70	75	76	0	0	0
Jalal-Abad oblast	1	14	14	139	137	137	0	1	2
Issyk-Kul oblast	7	7	7	67	45	44	14	14	14
Osh oblast	14	17	11	173	150	109	0	0	0
Osh city	11*	7	7	43	40	40	0	0	0
Bishkek city	19*	19	19	99	99	99	0	0	0
Chui oblast	10	10	10	110	93	91	7	5	6
Kyrgyz Republic	**39**	**83**	**87**	**748**	**671**	**668**	**31**	**29**	**31**

Source: NHIC Note: *merged polyclinics

Table A.4.2 Number of visits at the primary level, 2001-03

Oblast	year	Number of visits to a doctor		Number of home visits		Total number of visits	Cases serviced in polyclinic
		total	Including on disease	total	Including on disease		
Naryn	2001	933300	272100	113200	40300	1046500	79924
	2002	663678	183737	103591	40671	767269	-
	2003	655325	224186	113773	37818	769098	221090
Talas	2001	750092	331942	98500	56086	848592	382150
	2002	591522	261564	80270	40710	671792	-
	2003	540685	248453	75782	44733	616467	264258
Batken	2001	1233156	533817	190611	58973	1423767	353675
	2002	1142523	484164	213609	67059	1356132	-
	2003	946177	369602	169074	61805	1115251	344252
Jalal-Abad	2001	2739989	868383	419249	115779	3159238	1250043
	2002	2401361	741670	428384	120601	2829745	-
	2003	2251409	743096	447792	118906	2699201	1199379
Issyk-Kul	2001	1256933	491877	209500	96109	1466433	365045
	2002	1083141	465745	192760	75804	1275901	-
	2003	1084865	436078	209193	66148	1294058	393253
Osh	2001	2942303	1068340	392684	99942	3334987	928054
	2002	3773172	1348701	739414	217114	4512586	-
	2003	1841479	633582	345331	92469	2186810	773877
Osh city	2001	-	-	-	-	-	-
	2002	-	-	-	-	-	-
	2003	985414	327419	197379	46738	1182793	256567
Bishkek	2001	4323578	1719656	748900	304890	5072478	1304245
	2002	4392847	1908576	709846	268793	5102693	-
	2003	4396782	1956386	737709	309799	5134491	1869625
Chui	2001	2316059	1127524	323174	129756	2639233	1075563
	2002	2016998	903940	323775	120562	2340773	-
	2003	1934213	973104	369778	164280	2303991	1037925
KR*	2001	16495410	6413639	2495818	901835	18991228	5738699
	2002	16065242	6298097	2791649	951314	18856891	-
	2003	14636349	5911906	2665811	942696	17302160	6374487

Source: NHIC

Note: * visits to consultation polyclinics of the republican health facilities located in Bishkek were not taken into account

Table A.4.3 Number of specialists retrained on Family Medicine

INDICATOR	TOTAL ON WB	2003	
	BY 2002	WB	republican budget
NUMBER OF RETRAINED FGP DOCTORS	1654	492	65
BISHKEK	485	-	44
CHUI OBLAST	455	-	15
OSH OBLAST	257	134	-
JALAL-ABAD OBLAST	166	118	-
BATKEN OBLAST	15	57	-
ISSYK-KUL OBLAST	276	-	6
NARYN OBLAST	0	101	-
TALAS OBLAST	0	82	-
NUMBER OF RETRAINED FGP NURSES	1953	629	85
BISHKEK	302	-	36
CHUI OBLAST	706	-	49
OSH OBLAST	262	149	-
JALAL-ABAD OBLAST	147	111	-
BATKEN OBLAST	42	97	-
ISSYK-KUL OBLAST	283	99	-
NARYN OBLAST	116	87	-
TALAS OBLAST	95	86	-

Source:CCME

Appendix #5

Further data human resources

Work on creation of the Database on personified registration of health staff has started under the Health-1 Project jointly with USAID. The main goal was to ensure regular registration of health human resources. The Unified Health Information System Development Concept was approved in November 2001. Work on integration of the personal database software with existing electronic bases (database on clinical-information forms of outpatient level and database on enrolled population) is being accomplished. The MoH working group has developed a number of reference-books needed for final development of the software on personal HRM database, as listed:

1) Reference-book of educational institutions on training of doctors, nurses and other staff.
2) Reference-book of nationalities.
3) Reference-book of marrital status.
4) Reference-book of housing conditions of health staff.
5) Reference-book of disciplinary punishments.
6) Reference-book of violation of labor responsibilities.
7) Reference-book of types and reasons of termination of labor agreements.
8) Reference-book of academic degrees.
9) Reference-book of academic status.
10) Reference-book of occupied positions.
11) Reference-book of state awards.
12) Reference-book of positions for doctors, nurses and other personnel.
13) Reference-book of specialties for doctors, nurses and other personnel.
14) Nomenclature of positions and list of compliance of health and pharmaceutical specialties with positions in health organizations of the Kyrgyz Republic.
15) Reference-book of structural subdivisions of health organizations of the Kyrgyz Republic.

The software on Personified Database has been approved and is currently being installed in pilot facilities. It is intended to expand the database nationwide. This work is being implemented jointly with staff of the NHIC who will further maintain, update and administer the database on regular base.

Table A.5.1. Total number of staff

Oblast. Region	Positions	Total Budget positions				03-00	%
		2000	2001	2002	2003	var	var
Kyrgyz Republic	Doctors	14894,50	13939,75	13915,75	14021,50	-873,00	-6%
	Nurses	33411,25	30213,00	29649,75	30142,75	-3268,50	-10%
	supporting medical staff	18756,50	16065,25	15063,75	14926,00	-3830,50	-20%
	other staff	11872,25	10911,50	10859,25	10936,75	-935,50	-8%
	Total Staff	78934,50	71129,50	69488,50	70027,00	-8907,50	-11%
Bishkek city	Doctors	2423,00	2412,50	2422,50	2467,75	44,75	2%
	Nurses	4275,50	4234,00	4220,50	4323,25	47,75	1%
	supporting medical staff	1951,75	1936,75	1892,25	1627,25	-324,50	-17%
	other staff	1157,00	1127,00	1219,25	1334,75	177,75	15%
	Total Staff	9890,75	9788,25	9818,75	9789,50	-101,25	-1%
Rep.level	Doctors	1920,50	1731,00	1662,75	1710,75	-209,75	-11%
	Nurses	4790,25	4096,75	3868,25	3905,50	-884,75	-18%
	supporting medical staff	4311,75	3466,00	3214,25	3191,00	-1120,75	-26%
	other staff	2357,75	2309,00	2204,75	1768,50	-589,25	-25%
	Total Staff	11987,25	11804,75	11334,75	10784,00	-1203,25	-10%
Rep.in Bishkek city	Doctors	1838,50	1648,50	1534,44	1628,50	-210,00	-11%
	Nurses	4464,75	3783,25	3534,31	3580,25	-884,50	-20%
	supporting medical staff	3909,25	3093,25	2854,29	2822,75	-1086,50	-28%
	other staff	2032,00	1986,25	1860,54	1483,75	-548,25	-27%
	Total Staff	11046,50	10706,75	9916,82	9723,50	-1323,00	-12%
Bishkek Territor	Doctors	4261,50	4061,00	3956,94	4096,25	-165,25	-4%
	Nurses	8740,25	8017,25	7754,81	7903,50	-836,75	-10%
	supporting medical staff	5861,00	5030,00	4746,54	4450,00	-1411,00	-24%
	other staff	3189,00	3113,25	3079,79	2818,50	-370,50	-12%
	Total Staff	22051,75	20221,50	19538,07	19268,25	-2783,50	-13%
Rep.excl.Bishkek city	Doctors	82,00	82,50	128,31	82,25	0,25	0%
	Nurses	325,50	313,50	333,94	325,25	-0,25	0%
	supporting medical staff	402,50	372,75	359,96	368,25	-34,25	-9%
	other staff	325,75	322,75	344,21	284,75	-41,00	-13%
	Total Staff	1135,75	1091,50	1166,43	1060,50	-75,25	-7%
Chuy obl.	Doctors	2206,50	1715,00	1621,00	1643,25	-563,25	-26%
	Nurses	4891,25	3239,50	3066,50	3143,25	-1748,00	-36%
	supporting medical staff	2471,50	1415,50	1298,50	1256,00	-1215,50	-49%
	other staff	1775,50	1347,25	1260,00	1266,00	-509,50	-29%
	Total Staff	11344,75	7717,25	7246,00	7308,50	-4036,25	-36%
Issyk-Kul obl.	Doctors	1191,50	967,25	987,50	909,00	-282,50	-24%
	Nurses	2687,25	1835,50	1879,00	1752,50	-934,75	-35%
	supporting medical staff	1405,50	796,25	781,00	734,75	-670,75	-48%
	other staff	975,25	540,75	684,25	701,75	-273,50	-28%

Oblast. Region	Positions	Total Budget positions				03-00	%
		2000	2001	2002	2003	var	var
	Total Staff	6259,50	4139,75	4331,75	4098,00	-2161,50	-35%
Naryn obl.	Doctors	817,00	814,00	649,00	664,50	-152,50	-19%
	Nurses	1796,00	1775,00	1319,50	1337,75	-458,25	-26%
	supporting medical staff	867,00	835,00	523,00	505,50	-361,50	-42%
	other staff	630,00	612,00	435,50	466,25	-163,75	-26%
	Total Staff	4110,00	4036,00	2927,00	2974,00	-1136,00	-28%
Djalal-Abad obl.	Doctors	2091,50	2103,75	2180,75	2204,75	113,25	5%
	Nurses	4961,75	4958,50	4894,00	4989,50	27,75	1%
	supporting medical staff	2407,25	2367,00	2254,25	2215,00	-192,25	-8%
	other staff	1762,00	1725,25	1699,00	1766,00	4,00	0%
	Total Staff	11222,50	11154,50	11028,00	11175,25	-47,25	0%
Osh obl.	Doctors	2741,75	2703,75	2763,00	2918,25	176,50	6%
	Nurses	6432,50	6528,25	6659,50	7134,50	702,00	11%
	supporting medical staff	3591,00	3516,50	3388,00	3711,00	120,00	3%
	other staff	1985,75	2045,50	2007,00	2301,75	316,00	16%
	Total Staff	14751,00	14794,00	14817,50	16065,50	1314,50	9%
Talas obl.	Doctors	603,50	592,00	650,25	570,00	-33,50	-6%
	Nurses	1432,75	1367,50	1427,75	1305,00	-127,75	-9%
	supporting medical staff	638,50	633,50	623,50	584,25	-54,25	-8%
	other staff	513,75	513,75	578,00	542,25	28,50	6%
	Total Staff	3188,50	3106,75	3279,50	3001,50	-187,00	-6%
Batken obl.	Doctors	899,25	900,50	979,00	933,25	34,00	4%
	Nurses	2144,00	2178,00	2314,75	2251,50	107,50	5%
	supporting medical staff	1112,25	1098,75	1089,00	1101,25	-11,00	-1%
	other staff	715,25	691,00	771,50	789,50	74,25	10%
	Total Staff	4870,75	4868,25	5154,25	5075,50	204,75	4%

Source: DFID

Table A.5.2. Occupied positions

Oblast. Region	Positions	Total Occupied positions				03-00	%
		2000	2001	2002	2003	var	var
Kyrgyz Republic	Doctors	13845,75	13050,75	12896,50	12903,75	-942,00	-7%
	Nurses	31955,00	29257,25	28544,00	29101,15	-2853,85	-9%
	supporting medical staff	17919,00	15657,50	14644,50	14443,65	-3475,35	-19%
	other staff	11407,50	10548,50	10511,50	10471,45	-936,05	-8%
	Total Staff	75127,25	68514,00	66596,50	66920,00	-8207,25	-11%
Bishkek city	Doctors	2398,00	2382,75	2397,75	2449,75	51,75	2%
	Nurses	4217,00	4174,00	4128,50	4299,25	82,25	2%
	supporting medical staff	1936,25	1905,00	1858,00	1620,00	-316,25	-16%
	other staff	1154,50	1112,25	1211,25	1334,50	180,00	16%
	Total Staff	9787,75	9649,00	9655,75	9740,00	-47,75	0%
Rep.level	Doctors	1812,00	1635,50	1560,75	1583,25	-228,75	-13%
	Nurses	4310,50	3746,25	3594,25	3636,40	-674,10	-16%
	supporting medical staff	3892,75	3197,25	3066,75	2962,15	-930,60	-24%
	other staff	2175,25	2139,00	2095,75	1580,70	-594,55	-27%
	Total Staff	11176,00	10923,25	10665,25	9954,75	-1221,25	-11%
Rep.in Bishkek city	Doctors	1731,85	1560,25	1448,47	1504,50	-227,35	-13%
	Nurses	3986,35	3442,00	3265,22	3328,40	-657,95	-17%
	supporting medical staff	3494,00	2838,00	2708,42	2609,90	-884,10	-25%
	other staff	1853,00	1823,25	1750,87	1301,95	-551,05	-30%
	Total Staff	10050,70	9868,75	9483,69	8937,00	-1113,70	-11%
Bishkek Territor	Doctors	4129,85	3943,00	3846,22	3954,25	-175,60	-4%
	Nurses	8203,35	7616,00	7393,72	7627,65	-575,70	-7%
	supporting medical staff	5430,25	4743,00	4566,42	4229,90	-1200,35	-22%
	other staff	3007,50	2935,50	2962,12	2636,45	-371,05	-12%
	Total Staff	20770,95	19237,50	18768,48	18448,25	-2322,70	-11%
Rep.excl.Bishkek city	Doctors	80,15	75,25	112,28	78,75	-1,40	-2%
	Nurses	324,15	304,25	329,03	308,00	-16,15	-5%
	supporting medical staff	398,75	359,25	358,33	352,25	-46,50	-12%
	other staff	322,25	315,75	344,88	278,75	-43,50	-13%
	Total Staff	1125,30	1054,50	1144,52	1017,75	-107,55	-10%
Chuy obl.	Doctors	1940,00	1580,75	1540,50	1523,25	-416,75	-21%
	Nurses	4514,50	3132,75	2999,50	3015,00	-1499,50	-33%
	supporting medical staff	2226,00	1387,00	1250,25	1214,50	-1011,50	-45%
	other staff	1594,00	1294,50	1206,50	1164,50	-429,50	-27%
	Total Staff	10274,50	7395,00	6996,75	6917,25	-3357,25	-33%
Issyk-Kul obl.	Doctors	1124,00	933,50	942,50	874,75	-249,25	-22%
	Nurses	2600,50	1818,00	1843,25	1726,00	-874,50	-34%
	supporting medical staff	1339,25	794,00	763,50	728,75	-610,50	-46%
	other staff	963,75	537,00	675,75	699,75	-264,00	-27%
	Total Staff	6027,50	4082,50	4225,00	4029,25	-1998,25	-33%

Oblast. Region	Positions	Total Occupied positions				03-00	%
		2000	2001	2002	2003	var	var
Naryn obl.	Doctors	770,00	767,00	604,25	622,00	-148,00	-19%
	Nurses	1792,00	1770,00	1312,25	1326,75	-465,25	-26%
	supporting medical staff	866,00	834,00	511,00	502,50	-363,50	-42%
	other staff	624,00	604,00	434,50	463,25	-160,75	-26%
	Total Staff	4052,00	3975,00	2862,00	2914,50	-1137,50	-28%
Djalal-Abad obl.	Doctors	1879,50	1866,50	1864,75	1920,25	40,75	2%
	Nurses	4828,00	4819,25	4751,50	4808,00	-20,00	0%
	supporting medical staff	2378,00	2344,75	2194,50	2177,50	-200,50	-8%
	other staff	1726,50	1652,25	1627,00	1712,25	-14,25	-1%
	Total Staff	10812,00	10682,75	10437,75	10618,00	-194,00	-2%
Osh obl.	Doctors	2526,00	2504,00	2517,75	2622,00	96,00	4%
	Nurses	6321,25	6427,00	6394,00	6910,75	589,50	9%
	supporting medical staff	3562,75	3492,00	3329,25	3625,75	63,00	2%
	other staff	1968,75	2024,00	1957,00	2225,00	256,25	13%
	Total Staff	14378,75	14447,00	14198,00	15383,50	1004,75	7%
Talas obl.	Doctors	559,75	555,25	587,75	511,25	-48,50	-9%
	Nurses	1423,00	1363,00	1362,75	1251,50	-171,50	-12%
	supporting medical staff	633,25	632,25	617,25	548,50	-84,75	-13%
	other staff	500,25	510,25	564,00	534,50	34,25	7%
	Total Staff	3116,25	3060,75	3131,75	2845,75	-270,50	-9%
Batken obl.	Doctors	836,50	825,50	880,50	797,25	-39,25	-5%
	Nurses	1948,25	2007,00	2158,00	2127,50	179,25	9%
	supporting medical staff	1084,75	1071,25	1054,00	1064,00	-20,75	-2%
	other staff	700,50	675,25	739,75	757,00	56,50	8%
	Total Staff	4570,00	4579,00	4832,25	4745,75	175,75	4%

Source: DFID

Table A.5.3. Physical persons

Oblast. Region	Positions	Total Physical persons				03-00	%
		2000	2001	2002	2003	var	var
Kyrgyz Republic	Doctors	10163	9787	9764	9867	-296	-3%
	Nurses	25200	23721	23390	24338	-862	-3%
	supporting medical staff	13724	12083	11086	10860	-2864	-21%
	other staff	8982	8374	8262	8145	-837	-9%
	Total Staff	58069	53965	52502	53210	-4859	-8%
Bishkek city	Doctors	1880	1880	1857	1940	60	3%
	Nurses	2291	2233	2200	2840	549	24%
	supporting medical staff	1068	1001	919	891	-177	-17%
	other staff	721	708	843	838	117	16%
	Total Staff	6017	5877	5853	6536	519	9%
Rep.level	Doctors	1507	1351	1231	1304	-203	-13%
	Nurses	2624	2549	2523	2564	-60	-2%
	supporting medical staff	2279	1917	1772	1687	-592	-26%
	other staff	1460	1411	1424	1014	-446	-31%
	Total Staff	8016	7338	7087	6732	-1284	-16%
Rep.in Bishkek city	Doctors	1435	1296	1150	1252	-183	-13%
	Nurses	2346	2297	2188	2311	-35	-1%
	supporting medical staff	1896	1595	1412	1394	-502	-26%
	other staff	1173	1132	1079	751	-422	-36%
	Total Staff	6996	6430	5891	5871	-1125	-16%
Bishkek Territor	Doctors	3315	3176	3007	3192	-123	-4%
	Nurses	4637	4530	4388	5151	514	11%
	supporting medical staff	2964	2596	2331	2285	-679	-23%
	other staff	1894	1840	1922	1589	-305	-16%
	Total Staff	12810	12142	11648	12217	-593	-5%
Rep.excl.Bishkek city	Doctors	72	55	81	52	-20	-28%
	Nurses	278	252	335	253	-25	-9%
	supporting medical staff	383	322	360	293	-90	-23%
	other staff	287	279	345	263	-24	-8%
	Total Staff	1020	908	1121	861	-159	-16%
Chuy obl.	Doctors	1441	1279	1280	1275	-166	-12%
	Nurses	3644	2815	2686	2710	-934	-26%
	supporting medical staff	1608	1042	978	966	-642	-40%
	other staff	1219	1005	919	907	-312	-26%
	Total Staff	7912	6141	5863	5858	-2054	-26%
Issyk-Kul obl.	Doctors	747	660	694	671	-76	-10%
	Nurses	2054	1629	1700	1611	-443	-22%
	supporting medical staff	1196	728	714	653	-543	-45%
	other staff	734	428	576	598	-136	-18%
	Total Staff	4731	3445	3684	3533	-1198	-25%
Naryn obl.	Doctors	547	538	486	471	-76	-14%
	Nurses	1736	1706	1289	1294	-442	-25%
	supporting medical staff	821	790	472	503	-318	-39%
	other staff	590	581	380	438	-152	-26%

Oblast. Region	Positions	Total Physical persons				03-00	%
		2000	2001	2002	2003	var	var
	Total Staff	3694	3615	2627	2705	-989	-27%
Djalal-Abad obl.	Doctors	1245	1257	1287	1325	80	6%
	Nurses	4293	4185	4187	4236	-57	-1%
	supporting medical staff	2114	2071	1889	1840	-274	-13%
	other staff	1443	1390	1357	1385	-58	-4%
	Total Staff	9095	8903	8720	8786	-309	-3%
Osh obl.	Doctors	1815	1840	1927	1949	134	7%
	Nurses	5497	5492	5628	6066	569	10%
	supporting medical staff	3007	2971	2883	2922	-85	-3%
	other staff	1733	1779	1654	1857	124	7%
	Total Staff	12052	12082	12092	12795	743	6%
Talas obl.	Doctors	357	376	369	339	-18	-5%
	Nurses	1185	1178	1110	1046	-139	-12%
	supporting medical staff	544	510	456	410	-134	-25%
	other staff	429	419	446	430	1	0%
	Total Staff	2515	2483	2381	2225	-290	-12%
Batken obl.	Doctors	624	606	633	593	-31	-5%
	Nurses	1876	1934	2067	1972	96	5%
	supporting medical staff	1087	1053	1003	988	-99	-9%
	other staff	653	653	663	677	24	4%
	Total Staff	4240	4246	4366	4231	-9	0%

Source: DFID

Table A.5.4. Ratio of physical persons to occupied positions

Oblast. Region	Positions	Ratio of physical persons to occupied positions Total			
		2000	2001	2002	2003
Kyrgyz Republic	Doctors	1,36	1,33	1,32	1,31
	Nurses	1,27	1,23	1,22	1,20
	supporting medical staff	1,31	1,30	1,32	1,33
	other staff	1,27	1,26	1,27	1,29
	Total Staff	1,29	1,27	1,27	1,26
Bishkek city	Doctors	1,28	1,27	1,29	1,26
	Nurses	1,84	1,87	1,88	1,51
	supporting medical staff	1,81	1,90	2,02	1,82
	other staff	1,60	1,57	1,44	1,59
	Total Staff	1,63	1,64	1,65	1,49
Rep.level	Doctors	1,20	1,21	1,27	1,21
	Nurses	1,64	1,47	1,42	1,42
	supporting medical staff	1,71	1,67	1,73	1,76
	other staff	1,49	1,52	1,47	1,56
	Total Staff	1,39	1,49	1,50	1,48
Rep.in Bishkek city	Doctors	1,21	1,20	1,26	1,20
	Nurses	1,70	1,50	1,49	1,44
	supporting medical staff	1,84	1,78	1,92	1,87
	other staff	1,58	1,61	1,62	1,73
	Total Staff	1,44	1,53	1,61	1,52
Bishkek Territor	Doctors	1,25	1,24	1,28	1,24
	Nurses	1,77	1,68	1,69	1,48
	supporting medical staff	1,83	1,83	1,96	1,85
	other staff	1,59	1,60	1,54	1,66
	Total Staff	1,62	1,58	1,61	1,51
Rep.excl.Bishkek city	Doctors	1,11	1,37	1,39	1,51
	Nurses	1,17	1,21	0,98	1,22
	supporting medical staff	1,04	1,12	1,00	1,20
	other staff	1,12	1,13	1,00	1,06
	Total Staff	1,10	1,16	1,02	1,18
Chuy obl.	Doctors	1,35	1,24	1,20	1,19
	Nurses	1,24	1,11	1,12	1,11
	supporting medical staff	1,38	1,33	1,28	1,26
	other staff	1,31	1,29	1,31	1,28
	Total Staff	1,30	1,20	1,19	1,18
Issyk-Kul obl.	Doctors	1,50	1,41	1,36	1,30
	Nurses	1,27	1,12	1,08	1,07
	supporting medical staff	1,12	1,09	1,07	1,12
	other staff	1,31	1,25	1,17	1,17
	Total Staff	1,27	1,19	1,15	1,14
Naryn obl.	Doctors	1,41	1,43	1,24	1,32
	Nurses	1,03	1,04	1,02	1,03
	supporting medical staff	1,05	1,06	1,08	1,00
	other staff	1,06	1,04	1,14	1,06

Oblast. Region	Positions	Ratio of physical persons to occupied positions Total			
		2000	2001	2002	2003
	Total Staff	1,10	1,10	1,09	1,08
Djalal-Abad obl.	Doctors	1,51	1,48	1,45	1,45
	Nurses	1,12	1,15	1,13	1,14
	supporting medical staff	1,12	1,13	1,16	1,18
	other staff	1,20	1,19	1,20	1,24
	Total Staff	1,19	1,20	1,20	1,21
Osh obl.	Doctors	1,39	1,36	1,31	1,35
	Nurses	1,15	1,17	1,14	1,14
	supporting medical staff	1,18	1,18	1,15	1,24
	other staff	1,14	1,14	1,18	1,20
	Total Staff	1,19	1,20	1,17	1,20
Talas obl.	Doctors	1,57	1,48	1,59	1,51
	Nurses	1,20	1,16	1,23	1,20
	supporting medical staff	1,16	1,24	1,35	1,34
	other staff	1,17	1,22	1,26	1,24
	Total Staff	1,24	1,23	1,32	1,28
Batken obl.	Doctors	1,34	1,36	1,39	1,34
	Nurses	1,04	1,04	1,04	1,08
	supporting medical staff	1,00	1,02	1,05	1,08
	other staff	1,07	1,03	1,12	1,12
	Total Staff	1,08	1,08	1,11	1,12

Source: DFID

Appendix #6

Further data on civil works

Table A.6.1 Civil works under the World Bank Health – II project

Civil works under WB funds (as of 01.01.2005)

OBLAST	YEARS			Number of facilities
	2002	2003	2004	
BATKEN OBLAST	369 983,74	3 424,65	0,00	
HOSPITALS	340 921,68	3 424,65	0,00	6
FGPs, FMCs	15 401,75	0,00	0,00	4
SESs	13 660,31	0,00	0,00	3
JALAL-ABAD OBLAST	201 894,40	23 792,50	0,00	
HOSPITALS	183 245,88	23 792,50	0,00	5
FGPs, FMCs	0,00	0,00	0,00	
SESs	18 648,52	0,00	0,00	8
OSH OBLAST	292 266,69	4 446,86	0,00	
HOSPITALS	276 091,92	1 011,12	0,00	4
FGPs, FMCs	6 154,42	3 435,74	0,00	5
SESs	10 020,35	0,00	0,00	7
ISSYK-KUL OBLAST	111 122,46	297 506,24	2 043,22	
HOSPITALS	93 164,29	295 640,07	2 043,22	7
FGPs, FMCs	8 079,68	1 761,86	0,00	5
SESs	9 878,49	104,31	0,00	6
NARYN OBLAST	33 207,33	10 937,75	0,00	
HOSPITALS	0,00	0,00	0,00	
FGPs, FMCs	15 898,76	10 937,75	0,00	6
SESs	17 308,57	0,00	0,00	4
TALAS OBLAST	211 595,78	177 628,25	0,00	
HOSPITALS	145 469,04	177 628,25	0,00	5
FGPs, FMCs	45 942,18	0,00	0,00	11
SESs	20 184,56	0,00	0,00	3
CHUI OBLAST	215 791,11	36 767,63	0,00	
HOSPITALS	196 513,67	36 767,63	0,00	4
FGPs, FMCs	7 146,04	0,00	0,00	2
SESs	12 131,40	0,00	0,00	7
BISHKEK	148 145,47	107 121,99	56 608,66	
HOSPITALS	112 780,19	105 285,12	56 608,66	5
FGPs, FMCs	14 406,81	1 836,87	0,00	6
SESs	20 958,47	0,00	0,00	8

Table A.6.2 Civil works under the Kyrgyz-Swiss Project

CIVIL WORKS UNDER THE KYRGYZ-SWISS PROJECT
As of 01.01.05

OBLAST	AMOUNT
NARYN OBLAST	2 029 949,00
HOSPITALS	2 029 949,00
FGPs, FMCs	0,00
SESs	0,00
BISHKEK	69 482,00
HOSPITALS	69 482,00
FGPs, FMCs	0,00
SESs	0,00

Table A.6.3 Medical equipment purchased under the World Bank Health – III Project

MEDICAL EQUIPMENT PROCURED UNDER WB FUNDS (AS OF 01.01.2005)

OBLAST	YEARS			NUMBER OF FACILITIES
	2002	2003	2004	
BATKEN OBLAST	15 595,00	92 066,00	232 077,00	
HOSPITALS	0,00	0,00	226 874,00	15
FGPs, FMCs	3 555,00	62 393,00	5 203,00	15
SESs	12 040,00	29 673,00	0,00	5
JALAL-ABAD OBLAST	16 187,00	126 408,00	374 558,00	
HOSPITALS	0,00	2 295,00	363 655,00	6
FGPs, FMCs	1 137,00	87 005,00	10 903,00	15
SESs	15 050,00	37 108,00	0,00	11
OSH OBLAST	18 985,00	298 644,00	223 323,00	
HOSPITALS	0,00	0,00	188 698,00	5
FGPs, FMCs	4 243,00	97 544,00	11 403,00	22
SESs	14 742,00	201 100,00	23 222,00	9
ISSYK-KUL OBLAST	13 690,00	79 700,00	478 622,00	
HOSPITALS	0,00	0,00	474 412,00	7
FGPs, FMCs	1 650,00	36 488,00	4 210,00	12
SESs	12 040,00	43 212,00	0,00	7
NARYN OBLAST	14 553,00	65 491,00	10 052,00	
HOSPITALS	0,00	0,00	0,00	
FGPs, FMCs	5 523,00	35 634,00	4 210,00	11
SESs	9 030,00	29 857,00	5 842,00	6
TALAS OBLAST	14 510,00	64 466,00	304 247,00	
HOSPITALS	0,00	0,00	294 195,00	5
FGPs, FMCs	5 480,00	36 089,00	4 210,00	12
SESs	9 030,00	28 377,00	5 842,00	5
CHUI OBLAST	10 454,00	68 588,00	248 151,00	
HOSPITALS	0,00	0,00	230 834,00	6
FGPs, FMCs	1 424,00	31 953,00	11 475,00	12
SESs	9 030,00	36 635,00	5 842,00	8
BISHKEK	172 488,00	427 134,00	271 826,00	
HOSPITALS	0,00	38 998,00	173 505,00	7
FGPs, FMCs	3 148,00	54 325,00	0,00	14
SESs	169 340,00	333 811,00	98 321,00	2

Table A.6.4 Medical equipment purchased under the Kyrgyz – Swiss Project

MEDICAL EQUIPMENT PROCURED UNDER THE KYRGYZ-SWISS PROJECT (AS OF01.01.2005)

OBLAST	*AMOUNT*
NARYN OBLAST	***445 688,00***
HOSPITALS	*416 268,00*
FGPs, FMCs	*29 420,00*
SESs	*0,00*