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REVIEW OF EXPERIENCE OF FAMILY MEDICINE IN EUROPE AND CENTRAL ASIA: KYRGYZ REPUBLIC CASE STUDY

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ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank	NGO	Non-Governmental Organization
CAS	Country Assistance Strategy	NHA	National Health Accounts
CHI	Compulsory Health Insurance	OECD	Organisation for Economic Co-operation and Development
CME	Continuing Medical Education	OSCE	Objective Structured Clinical Examination
CPD	Continuing Professional Development	PBL	Problem-Based Learning
DFID	UK Department for International Development	PC	Primary Care
ECA	Europe and Central Asia	PHC	Primary Health Care
EBM	Evidence-Based Medicine	PHRD	Policy and Human Resource Development Fund
EU	European Union	PG	Postgraduate
FD	Family Doctor	PRSP	Poverty Reduction Strategy Paper
FGP	Family Group Practice	SDC	Swiss Development Corporation
FM	Family Medicine	STI	Sexually Transmitted Illness
FMP	Family Medicine Physician	SVA	Semeinaya/selksiya Vrachebnaya Ambulatoria (GP provider unit)
FMT	Family Medicine Team	TA	Technical Assistance
GDP	Gross Domestic Product	THE	Total Health Expenditure
GP	General Practitioner	TOT	Training of Trainers
HE	Health Expenditure	TOR	Terms of Reference
HIF	Health Insurance Fund	UK	United Kingdom
IDA	International Development Association	U.S.	United States of America
JICA	Japanese International Cooperation Agency	USAID	United States Agency for International Development
MDG	Millennium Development Goals	VOP	Vrach Obshei Praktiki (A doctor with basic training who works in PHC unit)
M&E	Monitoring and Evaluation	WB	The World Bank
MOH	Ministry of Health	WHO	World Health Organization

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This report reviews the experience of family medicine in the Kyrgyz Republic. It is part of a study comprising five volumes that reviews the experience of family medicine in four countries in the Europe and Central Asia Region (ECA) – Armenia, Bosnia and Herzegovina, the Kyrgyz Republic and Moldova. The report reviews the experience, draws lessons and establishes an evidence base for detailed analysis. The study presents best practices for policy dialogue and future investments by the World Bank and other financial institutions. The detailed case studies compare these countries and draw common themes and issues. Comparisons are made with best-developed or existing models in the OECD and other ECA countries that have already undertaken FM reform.

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EXECUTIVE SUMMARY

1. The objectives of the study were to review the experience of FM in Europe and Central Asia (ECA), present best practices, and make recommendations for policy dialogue and future investment. The study employed primary and secondary research, using both qualitative and quantitative methods of inquiry and a proprietary framework of analysis and instruments to explore key changes in policies, regulations, organizational structures, financing, resource allocation, provider payment systems, service provision, and human resources. The impact of FM reforms was analyzed.

2. Kyrgyz Republic inherited a health system based on the Soviet Semashko Model, characterized by centralized planning; hierarchical administrative organization; a very large provider network dominated by hospitals and tertiary provider units; parallel health systems for line ministries and large organizations; a poorly developed PHC level fragmented by a tripartite delivery model that provided services separately for adults, men and children, as well as a large number of vertical programs delivered by narrow specialists; absence of family physicians at PHC level which lacked gate keeping function; a surfeit of human resources concentrated in cities. The system was also characterized by an inequitable resource allocation system based on historic activities and inputs that favored large hospitals in urban centers at the expense of rural areas; line-item budgeting of provider units and salary-based payment systems that encouraged inefficiency and discouraged improved performance; strict care-delivery protocols, not based on current evidence, that encouraged excessive referral to the secondary care level; highly curative and disease focused services (partly attributable to the nature of medical training) with limited health promotion or prevention; and a system that allocated users to doctors and prevented them from exercising choice or meaningfully participating in their health care.

3. Prior to independence, the Kyrgyz Republic devoted 3.5 percent[1] of its GDP to health. Rapid economic decline further compromised the low level of funding to the health sector and led to underinvestment – creating a substantial funding gap between the level of financing needed by the health system and the resources available. The Kyrgyz Government sought to reform the health system to mobilize additional resources to address key problems – namely, organizational complexity; excess infrastructure and human resources; allocative inefficiency and inequities in financing; inefficient service provision; and limited incentives and low pay levels for health personnel.

4. From 1992, the Kyrgyz Government introduced key legislations to create an enabling environment and establish platforms for systemic, comprehensive and multifaceted health reforms with objectives of reducing inefficiencies, enhancing equity and access (financial and geographic), and improving quality.

5. Despite a severely resource-constrained environment, the achievements of FM-centered PHC reforms in the Kyrgyz Republic have been remarkable. The results clearly point to expanded scope of services in PHC with enhanced gate keeping and first-contact functions. There is a substantial secondary-to-primary shift with consequent improvement in the efficiency and effectiveness of the health system.

6. High-level support for FM reforms has been strong; the MOH has a clearly articulated health reform strategy and has succeeded in coordinating donor agencies to ensure alignment of inputs to reduce duplication and optimize value added by multilateral and bilateral organizations actively involved in the health sector, namely, WB, WHO, ADB, USAID, UNICEF, UNDP, DFID, SDC and JICA. Close

[1] 4.15% in 1990.

collaboration between the donor community and the government has led to emergence of an 'operational SWAP.'

KEY ACHIEVEMENTS: ORGANIZATIONAL AND REGULATORY CHANGES

7. Key laws and regulations have been developed to create an enabling environment for FM and PHC reforms. Family medicine is recognized as a specialty in the legal profession.

8. The tripartite system of pediatric, women's and adult clinics has been consolidated into unified PHC centers providing services for adult men and women and children. New PHC provider organizations have been established: FGPs with autonomy to manage budgets and contract with the Mandatory Health Insurance Fund, and FMCs comprising FGPs and narrow specialists.

9. The scope and content of FGP services have been articulated in law and defined in detail in the State Guaranteed Benefits Package.

10. The gate keeping function of PHC has been established, with FGPs acting as the first point of contact for patients.

11. A large number of PHC centers have been refurbished. Users have been given the freedom to choose their family physicians.

12. Limited accreditation has been introduced, and a number of PHC and hospital facilities have been accredited.

13. Mandatory Health Insurance (MHI) with co-payments has been introduced, providing additional resources to the health system and creating a transparent environment with regard to payments to health service providers. There is empirical evidence to show that the new system has benefited the poor.

FINANCING, RESOURCE ALLOCATION AND PROVIDER PAYMENT SYSTEMS

14. A key achievement is the Single Payer System, which has enabled pooling of all sub-national budget funds for health care in the Territorial Department of the Mandatory Health Insurance Fund in a "single-pipe funding" to the State Guaranteed Benefits Package.

15. New provider payment methods have been successfully introduced in the pilot regions for FGPs based on simple per capita mechanism. Direct and indirect contracts have been introduced for FGPs, including partial fundholding for pharmaceuticals.

SERVICE PROVISION

16. A State Guaranteed Benefits Package has been introduced for the entire population and provides free basic[2] PHC services for all citizens, regardless of their insurance status and enrollment. Citizens not covered under the MHI scheme are subject to formal co-payments for referral services in outpatients or hospital inpatient services provided by narrow specialists.

17. Citizens insured under the MHIF receive an outpatient drug package that provides certain drugs at reduced rates and lower co-payments for referral services in outpatients and as inpatients in hospital.

[2] Not all PHC services are free. Only basic PHC services included in the Benefits Package are free.

18. There is excellent coverage for immunizations and widespread provision of basic PHC services in all regions.

19. In the regions that have introduced the FGP model, the scope and content of services have expanded significantly. The task profile survey shows statistically significant difference in the application of medical techniques and use of equipment when delivering PHC services. Further, FGPs in advanced reform regions provide more health promotion as well as manage more first contact and chronic conditions as compared with intermediate and early reform regions.

20. There is evidence from the qualitative research that the new model is welcomed by the users and the health professionals, who identify many benefits including user-centeredness of the model, having a named doctor, user choice, the more comprehensive nature of the FM model, empowerment of the FM team, and increased emphasis on teamwork.

21. Analysis of the MHIF data demonstrates a substantial and appropriate shift from secondary to primary level with a decline in the number of hospital referrals for key acute and chronic conditions that are expected to be managed in a PHC setting. This finding is critical to demonstrate that changes are having the desired benefits of enhanced care management in the PHC setting with reduced referrals to hospitals – with consequent improvement in efficiency and effectiveness.

22. Evidence-based guidelines have been introduced for 162 common conditions encountered in PHC. This will enhance quality of PHC services delivered, reduce unnecessary interventions and diminish referrals to hospitals.

RESOURCE GENERATION

23. A critical mass of FM specialists and nurses, which meet 60-70 percent of the numbers needed, have participated in short-course retraining programs.

KEY CHALLENGES AND RECOMMENDATIONS

24. Family Medicine and PHC reforms in the Kyrgyz Republic have been highly successful and have evolved rapidly, but have reached a glass ceiling that needs to be negotiated. Many of the key stakeholders wish to see acceleration in the pace of reforms, particularly to broaden the role of FGPs and the scope of services they deliver; build on the payment mechanisms, contracts, and the autonomy afforded to the PHC providers to introduce more flexible contracts with incentives to improve performance, quality, and provide additional services – health promotion, prevention and extended PHC; increase remuneration for FGPs and FGP nurses trained as specialists; further refine resource allocation taking into account need and equity of access, favoring rural and poorer areas with higher health needs; place more emphasis on evidence-based medicine; and change reporting mechanisms that reinforce the old tripartite model and hinder unified service provision. Further legislative changes are needed to accelerate and support the next major phase of development.

25. Countrywide standards on scope and quality of services have succeeded in establishing minimum quality standards and equitable services to Kyrgyz citizens. However, in the future, a balance must be struck between standardization and innovation. Contracts with the FGPs should be used to encourage different parts of the system to progress at varying paces to extend the scope of services provided in PHC to levels provided in countries with more advanced PHC systems.

26. The presence of narrow specialists at FMCs, which can be accessed directly by patients, is a source of inefficiency and a key barrier to developing PHC. This leads to fragmentation of the first

contact function; fracture of the gate keeping function; adverse impact on continuity of care; hindrance to practicing integrated and holistic family medicine and extended PHC; duplication of hospital OPDs; and creation of false and potentially destructive perception of separate rural and urban models of PHC. This source of inefficiency should be eliminated by converting all FMCs to FGP centers. The narrow specialists who work in FMCs should be either gradually transferred to hospitals or retrained as family physicians.

27. Although FM reforms have been introduced to all regions and now cover the majority of the insured population, major inequities in access to services and funding exist. The next phase of reforms should strengthen the focus on equity by changing resource allocation mechanisms to take into account poverty and health needs and substantially modify the current patterns that favor urban areas and Republican hospitals.

28. Allocative inefficiencies between level of care and type of institution persist. In particular, Republican hospitals in Bishkek still consume a significant portion of the health system budget. This can be ill afforded; mechanisms are needed to reduce resources allocated Republican units and to reallocate these funds to PHC level.

29. Limited incentives and poor salaries of FM specialists are two major problems that need to be addressed immediately to retain the 'early adopters' and leaders and to give them the opportunity to innovate and lead change.

30. Although the new payment mechanisms do provide some incentives, there needs to be a stronger indication that FM is valued on par with hospital specialties. A visible salary differential between GPs and FM specialists, as well as between the narrow specialists who work in PHC and the FM specialists, would send a strong signal that FM is valued. Non-economic incentives, such as clearer development paths, opportunity of attachment to academic units, and continuing medical education, are mechanisms that should be utilized.

31. Undergraduate training is not aligned with international trends, is highly curative in focus, and is designed to produce narrow specialists. Undergraduate training in FM should be expanded to sensitize medical students to the specialty early in their studies and to ensure that future narrow specialists are acquainted with the scope and activities of FM, thereby creating a better common understanding between narrow specialists and FMPs.

32. Implementing PHC reforms is a complex, strategic change process and there is insufficient managerial capacity to accelerate the pace of development. It is necessary to rapidly develop a critical mass of middle and senior level managers and health professionals to act as change agents along with local capacity to deliver training programs.

33. As with the other countries in this study, a fundamental problem with the PHC reforms is the lack of systematically collected data. Although the Kyrgyz Republic has developed an impressive M&E system within the MHIF, the PHC component of the system needs enhancing and analytic capacity at MHIF further expansion to regularly analyze data to generate timely information to inform decisions.

34. Contracts, which have been successfully introduced in the pilot regions where the FGP model has been implemented, can be used as an effective tool to further improve equity, service quality, efficiency and effectiveness. However, to achieve these objectives there needs to be a move from simple per capita contracts to more sophisticated contracts with explicit quality and performance criteria and commensurate incentives to reward FGPs that achieve these. However, such a shift will require significant analytical and execution capacity at MHIF and MOH to develop, implement, manage and monitor more

sophisticated contracts; robust information systems in PHC to capture relevant and timely data on activities and outcomes; appropriate incentive systems; and more stability in health care financing (i.e., no accumulation of debts or arrears to health providers).

35. An effective FM-centered PHC system has been introduced, but incentives should be created to achieve further substantial secondary-to-primary shift and to develop extended PHC.

36. Vertical integration in the system is limited with precarious links between PHC and the hospital levels. There are excellent financing and organizational foundations (FGPs with budgetary autonomy, contracts, per capita payment system, partial fundholding) on which to build and introduce payment systems, such as full fundholding, to encourage innovation and strengthen the interface between primary and secondary levels.

37. Communication between and within levels of the health system and with the public is critical activity that needs to be enhanced to rectify misperceptions of FM which create barriers to full scale-up and sustainability of an FM-centered PHC system. A clear and all-embracing communication strategy is necessary to increase visibility of PHC reforms, inform key stakeholders of the expected benefits and increase ownership.

CRITICAL SUCCESS FACTORS

38. The study has identified a number of critical success factors. These include (a) Branding FM and image building to improve the status of FM specialists as compared with narrow specialists; (b) Improving work environment and conditions for FM teams; (c) Investing in communication between and within levels of the health system and with the public to share objectives and values of FM, develop trust and increase ownership; (d) Improving coordination of key agencies; (e) Developing a holistic approach to reform with simultaneous multifaceted interventions to achieve an enabling legal environment; organizational restructuring to enable new provider forms with increased autonomy; new financing methods; resource allocation mechanisms that address inequities; provider payment methods that overcome limitations of systems based on line-item-budgeting and salaries; contracts and evidence-based care guidelines to enhance quality and establish minimum standards; (f) Approaching reforms as a strategic change process; (g) Ensuring sensitivity and responsiveness to rapidly changing context; (h) Ensuring robust M&E systems are put in place to assess impact of reforms; and (i) Having a clearly articulated and planned exit strategy between projects to ensure sustained transformation.

1. INTRODUCTION

1.1. OBJECTIVES OF THE STUDY

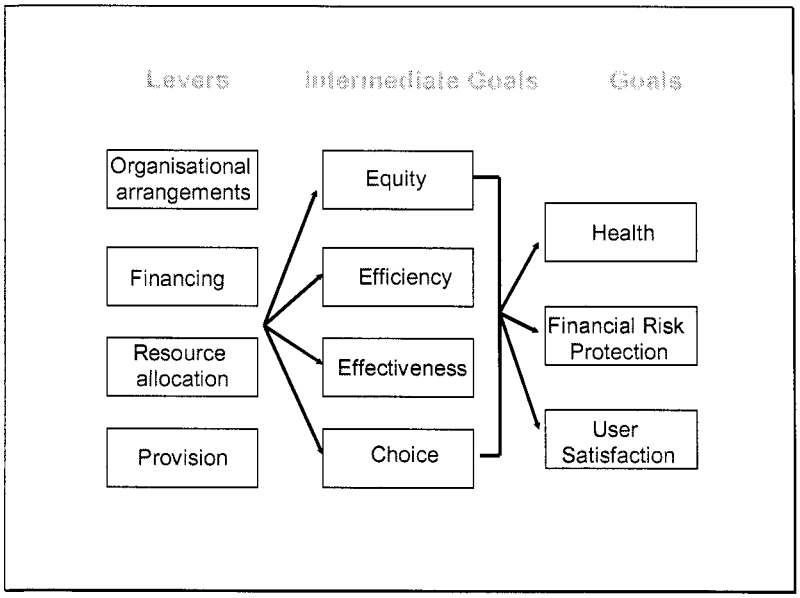
1. The objectives of the study were to review the experience of FM in Europe and Central Asia (ECA), present best practices, and make recommendations for policy dialogue and future investments.

1.2. THE EVALUATION FRAMEWORK

2. Kutzin suggests a three-step approach to evaluating health reforms describing clearly: (i) key contextual factors driving reform; (ii) the reform itself and its objectives, and (iii) the process by which the reform was (is being) implemented.[1] To this approach three elements can be added: (iv) describing clearly the changes introduced by the reforms; (v) analyzing the impact of these changes on health system objectives and goals; and (vi) establishing whether the reforms have achieved the policy objectives set by the Government or by the agency leading the reforms.

3. The evaluation used a framework to analyze key changes in health system elements and intermediate goals in relation to PHC. This is shown in Figure 1[2] (See Annex 1).

Figure 1: A Framework for Analyzing Health Systems



4. This framework builds on that developed by Hsiao[3] and identifies four levers available to policy makers and managers in health systems. Management and modification of these levers enables policy makers to achieve different intermediate objectives and goals. The 'organizational arrangements' lever refers to the policy environment, stewardship function, and structural arrangements in relation to funding agencies, purchasers, providers and market regulators. Financing and resource allocation levers refer to resource collection, pooling, allocation, and the mechanisms and methods used for paying health service providers. The 'provision' lever refers to the 'content' – the services provided by the health sector rather than the structures within which this 'content' is delivered. The intermediate goals identified in the framework – equity, technical and allocative efficiency, effectiveness, and choice – are frequently cited

by others as end goals in themselves. However, in this framework efficiency, equity, effectiveness and choice are taken as means – contributing to attainment of the health sector's ultimate goals of health, financial risk protection and user satisfaction.

5. This framework was used to analyze key changes in health system elements and intermediate goals. An important finding of literature search and country visits was the lack of systematically collected data at PHC level. Therefore, primary research was undertaken to generate original data to complement secondary research findings.

1.3. PRIMARY RESEARCH

6. Primary research comprised three elements: (i) Qualitative research; (ii) Primary Health Care Facility Survey; and (iii) Physician Task Profile Survey.

1.3.1. Qualitative Research

7. Qualitative research involved 57 key informant interviews to ascertain perceptions of FM reforms, critical success factors, barriers and enablers that influenced the introduction and diffusion of FM reforms.

8. The qualitative research explored the goals and objectives of the reforms, changes in structures and processes, key enabling factors and obstacles, major achievements and lessons learned.

9. A semi-structured questionnaire was specifically developed for the study for face-to-face, in-depth interviews of key informants. The questionnaire was piloted initially in Estonia, then refined and iteratively tested in the four countries studied.

10. Purposive sampling was used over two stages.[4] An initial set of key informants was interviewed for the first stage of the study using a semi-structured questionnaire. The data emerging from the initial set of interviews were analyzed to identify key emerging themes, which were explored further using a refined and shortened topic guide to allow in-depth exploration.[5] The second stage also employed purposive sampling with 'snowballing' to capture a multi-level, multi-stakeholder sample of key informants, representing the key stakeholders involved in PHC reforms in both policy development and implementation.

11. The analysis informed the detailed case study by capturing key structural and procedural changes, issues related to design and implementation of PHC reforms, the drivers and barriers to reform, the factors influencing the establishment of an enabling environment for change and the lessons learned.

1.3.2. Primary Health Care Facility and Physician Task Profile Surveys

12. These two elements of primary research were done concurrently to explore changes in service delivery and practice of family physicians as a result of the PHC reforms and training of physicians as FM specialists. It was not possible to do a pre- and post-intervention study as there were no data or baseline studies that analyzed service delivery patterns and physician practices before the reforms and after the introduction of changes.

13. We undertook two cross-sectional studies simultaneously: (i) Primary Health Care Facility survey, and (ii) Physician Task Profile survey.

14. We used two-stage sampling with probability proportional to size. Three regions were selected based on the relative stage of development of PHC care reforms: Issyk-Kul Oblast, an "Advanced" and rural region; Bishkek City, an "Intermediate" and urban region; and Osh, an "Early" and rural region. In the second stage of sampling a random sample of PHC facilities proportional to the size of the population served in the region were identified using a random number generator program (Table 1).

Table 1: The Regional Population/FGP Profile

Rayon (code)	Population (thousands)	Number of FGPs
Total for Bishkek (1)	775.3	115
Total for Issyk-Kul (2)	422.0	58
Total for Osh (3)	1256.8	127

Source: Republican Medical Information Center under the Ministry of Health of the Kyrgyz Republic.

15. A total of 100 PHC facilities and 200 doctors working within these facilities were surveyed. If a doctor was not present at the PHC facility on the date of the visit to the facility, the facility was dropped from the study (Table 2).

Table 2: Kyrgyz Republic: Number of Facilities and Physicians Surveyed

Advanced Region for PHC/FM Reforms	Less Advanced Region for PHC/FM Reforms	Developing PHC/FM Reforms	Total
Issyk-Kul Oblast	Bishkek City	Osh	
15 Facilities	34 Facilities	51 Facilities	100 Facilities
30 Doctors	68 Doctors	102 Doctors	200 Doctors

16. The PHC Provider Facility Survey and the Survey of Task Profiles of PHC doctors (FM specialist and GPs) were administered concurrently by interviewing PHC directors (for the Facility Survey) and doctors working in the PHC facilities for the Task Profile Survey.

1.3.2.1. PHC Provider Facility Survey

17. This component of the primary research used a facility survey instrument developed specifically for the study. The instrument drew on guidance and methodologies developed by the World Bank and a number of internationally available facility surveys.[6,7] The instrument was developed by the research team (Atun and Ibragimov) and refined following discussions with collaborators in Bosnia and Herzegovina, the Kyrgyz Republic, and Moldova to ensure appropriateness to the local context, and field tested in the Kyrgyz Republic before application in the four countries included in the study. It was piloted in each country including the Kyrgyz Republic to adapt it to the circumstances of the health care system.

18. The instrument (Annex 2) comprises sets of questions to capture information on: (i) General characteristics of PHC facilities and the population size served; (ii) Scope of services; (iii) Organization of services; (iv) Availability and composition of PHC staff, availability of essential emergency drugs, availability of equipment and services; (v) Comprehensiveness of services; and (vi) Quality of services.

19. The instrument was coded and a computer program was written in Microsoft Access® for data entry and analysis. We performed statistical analysis to test for observed differences.

1.3.2.2. Survey of Task Profiles of Family Physicians

20. The second component of the primary research was a cross-sectional survey of family physicians to explore their 'task profiles' using a validated instrument developed by the NIVEL Group in the Netherlands.[8] The instrument, previously tested and validated in 32 European countries, is available in Russian. It enables collection of detailed data on the preventive, promotive and curative services provided by family physicians and their skills (Annex 3). The instrument was obtained from the author, Dr. WGW Boerma, and, with his kind permission, used in the study.

21. The survey of the Task Profiles of Family Physicians aimed to identify the scope and availability of services and skills of doctors working at PHC level and to identify similarities and differences between FM specialist and non-specialist GPs.

22. The instrument was tested in the four study countries and minor modifications made to ensure contextual sensitivity. The instrument was coded and a data collection and entry program developed in Microsoft Access. Data were transferred to SPSS® for statistical analysis.

1.4. SECONDARY RESEARCH

23. Secondary research comprised two elements: (i) A review of international and in-country published literature to ascertain key legislative changes related to the reforms and to identify changes in financing, resource allocation, provider payment systems, organizational changes and regulation, and service provision; and (ii) Analysis of cross-sectional and longitudinal data on referral and admission.

1.5. LITERATURE REVIEW

24. The literature review was supplemented by documentary analysis of published reports, key legal instruments and policy documents from the four countries, World Bank Publications (including aide memoirs), Health Systems in Transition reports published by the European Observatory on Health Systems Research, and relevant studies on WB HNP projects in the ECA Region.

1.6. QUANTITATIVE ANALYSIS

25. Secondary research involved aggregation and analysis of quantitative data (cross-sectional and, where available, longitudinal data) from studies undertaken in the country, from the routinely collected statistics and from the MHIF database. Longitudinal as well as cross-sectional data were used to inform the case study. The longitudinal data were used to assess changes in certain indicators before and after the PHC reforms. Cross-sectional data were infrequently available.

26. Drawing on internationally validated instruments and indicators, key outcomes influenced by effective delivery of PHC – for conditions commonly managed in PHC, such as diabetes, acute respiratory illness and hypertension – were analyzed.[9] This element of the evaluation aimed to establish to what extent the reforms have led to attainment of key attributes of a PHC system – namely, first contact, continuity, comprehensiveness and coordination.

27. First contact refers to care that is accessible at the time of need, especially for acute conditions. Therefore, the indicators of effectiveness in this dimension should focus on the common acute clinical conditions that a PHC team should be able to diagnose and manage – without resorting to referral to secondary care. One way of measuring this would be to look at 'avoidable hospitalizations' for common acute clinical conditions – for instance, admissions for acute ENT problems, urinary tract infections (UTI) and bronchiolitis (Table 3).

Table 3: Effectiveness Indicators – First Contact Care

Acute conditions
Aggregate number of referrals by FMPs to hospital outpatients for acute ENT problems (Otitis media ICD 10 codes H65 and H66 and tonsillitis ICD 10 code J03)
Aggregate number of referrals by FMPs to hospital for acute UTI (ICD 10 code N39.0)
Aggregate number of referrals by FMPs to hospital for LRTI (bronchitis, bronchiolitis, pneumonia) in children aged under 5 (ICD 10 codes J10-18 and ICD 10 codes J20 and J21)

28. Ongoing care focuses on the long-term health of a person – not on the short-term duration of the disease – where the role of PHC is to manage the health of the person to prevent illness and worsening of chronic conditions. Therefore, the evaluation in this area focused on effective management of chronic conditions.

29. There are a number of conditions that can be effectively managed by the PHC team with low referral rates to secondary level – for instance hypertension, ischemic heart disease, non-insulin dependent diabetes mellitus, depression and asthma (Table 4).

Table 4: Effectiveness Indicators – Continuity of Care

Ongoing care: Chronic illness
Aggregate number of hospitalizations for hypertension (ICD i10) Aggregate number of referrals to hospital admission for hypertension
Aggregate number of hospitalizations for NIDDM (ICD E11) Aggregate number of referrals to hospital for NIDDM
Aggregate number of hospitalizations for asthma (ICD J45) Aggregate number of referrals to hospital for asthma
Aggregate number of referrals to hospital for ischemic heart disease/angina Aggregate number of admissions to hospital for ischemic heart disease/angina (ICD i20 & ICD i25)

30. In the Kyrgyz Republic, we were able to access three-year data on referral and admission patterns from the MHIF.

2. THE KYRGYZ HEALTH SYSTEM PRIOR TO HEALTH REFORMS

31. The Kyrgyz Republic has a population of five million and occupies a territory of 199,900 km2.[10] Almost 70 percent of the territory is mountainous and difficult to access by transport. The hard-to-reach rural population comprises almost 70 percent of the total. The poverty rate remains high but has declined from 52 percent in 2000 to 40 percent in 2003.[11]

32. The broad population health indicators for the Kyrgyz Republic have improved in the period 1996 to 2003: life expectancy increased from 66.6 to 68.6 years, infant mortality declined from 25.9 to 20.9 per 1,000 live births, and average maternal mortality rate fell by 18.5 percent, from 65 to 53.1 per 100,000 live births. However, inter-regional differences remain (Annex 4).

2.1. HEALTH SYSTEM ORGANIZATION AND FINANCING

33. The Kyrgyz Republic inherited a health system based on the Soviet Semashko model: a centrally managed and integrated public health system in which all the system assets were state-owned, health professionals were state employees and access to care was free at the point of delivery. Parallel health systems existed for Ministries of Internal Affairs, Defence, Railways, Labour and Social Affairs and the Ministry of National Security, as well as large enterprises, creating a vast health care provider infrastructure. A parallel public health network, the Sanitary Epidemiological System (SES), existed with a focus on surveillance and prevention but with limited health promotion or education activities.

34. Six levels of health care providers existed in the delivery system focused on curative services and dominated by hospitals: (i) feldsher-midwifery post (FAP) staffed by community nurse/midwifes; (ii) rural physician clinic (SVA) staffed by non-specialist general practitioners; (iii) polyclinics, staffed by therapeutists (general doctors) who looked after adults, pediatricians who looked after children, gynecologists who were responsible for women's health, as well narrow specialists (such as ENT surgeons, neurologists, ophthalmologists, cardiologists) who worked at PHC level and received patients directly following referral; (iv) basic rural hospitals (SUBs) staffed by rural physicians and narrow specialists; (v) central district hospitals, and; (vi) Specialists hospitals (women's hospital) and Republican hospitals (in capital city Bishkek) which provided tertiary care services, and specialist institutes.[12,13]

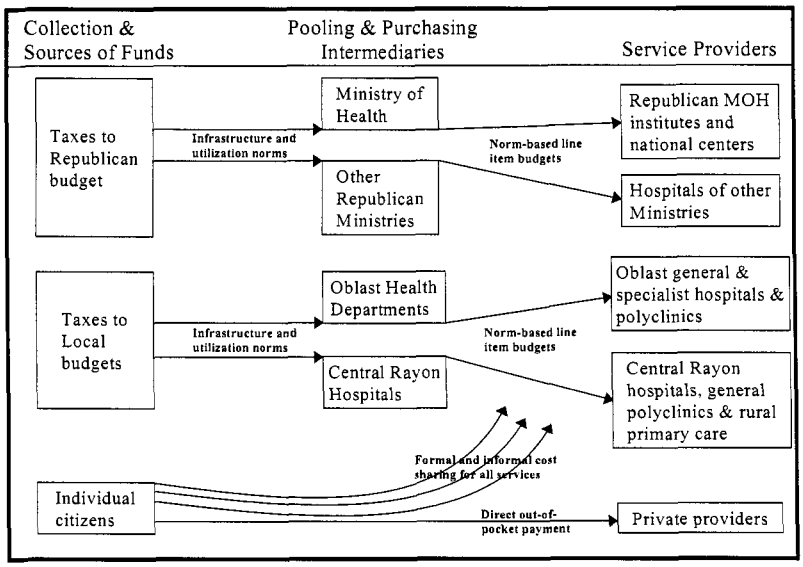
35. PHC level was fragmented with a tripartite polyclinic system comprising adult, women's and children's consultation centers and dispensaries for dermato-venereology, narcology, psychiatry and tuberculosis. Adult centers were staffed with therapeutists and narrow specialists; women's polyclinics with gynecologists and related narrow specialists; and children's polyclinics staffed by pediatricians and pediatric narrow specialists. These polyclinics had a large number of nurses and ancillary staff, who assisted doctors but did not practice independently.

36. An ambulance network, staffed by emergency specialists and therapeutists, provided after-hours care in urban areas, provided home visits, administered treatment and transported ill patients to hospitals.

37. Administratively, the health system was highly hierarchical and divided into regional administrative units (oblasts), each with its own Regional Health Department (RHD). In large and medium-sized cities a City Health Department (CHD) was responsible for managing medical services. Cities and rural areas were divided into districts (rayons), each served by a rayon hospital, polyclinic and a network of rural SVAs and FAPs. Oblast or city health department chiefs, appointed by the regional governor with MOH approval, administered PHC and secondary services for the region. In turn, each central rayon hospital (located in the central town of each district) had a chief physician with responsibility for local primary and secondary health care services.

38. The structure of the health system, allocation of infrastructure and resources, and staffing levels within the health system were determined by centrally planned normatives. Line-item budgeting was the provider payment method used to finance health service providers, with funding determined by input and activity parameter: at hospital level the number of beds, number of patients treated, total number of inpatient days, length of stay; and at PHC level according to number of staff or consultations (Figure 2).

Figure 2: Flow of Funds in the Kyrgyz Health System Prior to 1997



Source: "Resource allocation and purchasing in Kyrgyz Health System", Kutzin J et al.

3. KEY PROBLEMS FACED BY THE KYRGYZ HEALTH SYSTEM IN THE TRANSITION PERIOD

39. The declaration of independence and decoupling from the Soviet Union in 1991 was followed by severe economic and social challenges. Between 1992 and 1995 the GDP of the Kyrgyz Republic declined by 50 percent.[14] This led to a severe shortfall in resources pooled for health system financing with the government able to cover only 45-50 percent of health system expenditures.[15,16]

40. Prior to independence, the Kyrgyz Republic devoted 3.5 percent[3] of its GDP to health (as compared with the EU average of 7-10 percent of GDP but in line with other post-Soviet countries). Rapid economic decline further compromised the low level of funding to the health sector – creating a substantial funding gap between the level of financing needed by the health system and the resources available. The Kyrgyz Government sought to reform the health system to mobilize additional resources to address key problems, namely: (i) organizational complexity; (ii) excess infrastructure and human resources; (iii) allocative inefficiency and inequities in financing; (iv) inefficient service provision; (v) limited incentives and low pay levels for health personnel.

3.1. ORGANIZATIONAL COMPLEXITY

41. Presence of multiple health systems with limited integration created significant duplication of services and inefficiency. Up to 7 percent of total health expenditures was consumed by services of other ministries.[17]

42. Structural inefficiencies were exacerbated by four administrative levels – rayon, municipality, oblast and republican – with overlapping catchment populations and duplicated provision. Each government level funded its own facilities: republican institutes funded from republican level taxes; oblast facilities funded from oblast taxes; and rayon/city facilities funded from rayon/city taxes. Each level attempted, albeit unsuccessfully, to find resources to keep facilities operational rather than co-operating for orderly rationalization of the infrastructure or human resources.

43. A highly hierarchical system, with central planning driven by normatives and with an administrative culture, prevailed: unable to respond to contextual changes in a timely and efficient manner. Centrally developed normatives limited locally driven innovation.

3.2. EXCESS INFRASTRUCTURE AND HUMAN RESOURCES

44. Health system had an excess of hospitals and human resources. Expenses for utilities consumed much of the funding allocated to hospitals, leaving meager resources for staff, equipment, consumables and maintenance of the infrastructure.

45. Although there were an excess number of human resources, in particular physicians, these were inequitably distributed, with high concentration in the capital City of Bishkek and insufficient numbers in rural areas.

[3] 4.15% in 1990.

3.3. ALLOCATIVE INEFFICIENCY AND INEQUITABLE FINANCING

46. Fragmented revenue collection arrangements for health system financing – with each level responsible for supplying resources for their own providers – led to inequities. Poorer rural areas could only raise limited resources despite having higher health needs, in contrast to urban and better-off areas that had more resources and a surfeit of providers. Hence, a system was needed that unified and pooled financial resources at a single organization and then allocated these resources according to need.

47. The prevailing resource allocation system favored hospitals and urban areas at the expense of primary care and rural areas, resulting in poorly targeted investments.

48. Resources were allocated to providers as budgets according to norms based on inputs and historic activities. Hence, a large number of beds and lengthy admissions at a hospital meant more staff positions, a greater budget and supplier-induced demand.

49. Line-item budgeting provided very limited ability to wire funds between budget lines. There were no incentives that rewarded good performance and promoted improved efficiency, equity or quality.

3.4. INEFFICIENT SERVICE PROVISION

50. The services provided were not user focused. The users were not able to select and register with a named primary care physician, had limited involvement in decision making and were passive recipients of services rather than active participants in the health production process.

51. A number of problems existed in relation to level of integration and gate keeping, in particular: (i) Fragmented first contact function at PHC level where users could directly access narrow specialists; (ii) Limited gate keeping with excessive referrals of patients to narrow specialists at PHC level and hospitals; (iii) Limited integration between primary and secondary care levels with fractured continuum of care; (iv) Predominance of national vertical programs, such as immunization, which prevented horizontal integration within PHC; (v) Limited capacity at PHC level to resolve problems, leading to a hospital-centric health system; (vi) Limited emphasis on health education, promotion and prevention; and (vii) Poor diffusion of evidence-based care guidelines.

3.5. LIMITED INCENTIVES AND LOW PAY LEVELS FOR HEALTH PERSONNEL

52. Doctors and nurses working in the health system have low salaries, raging between US$30-100 per month. Those working in PHC have lower income levels as compared with those in hospitals. Although family physicians have marginally higher salaries than narrow specialists who work in PHC centers, the latter have greater opportunity to augment their income through additional private work. Low salaries have led to difficulties in attracting and retaining health professionals in rural areas.

53. Faced with these challenges, the Kyrgyz Government, in collaboration with the WB, WHO, USAID, SDC, DFID, ADB and JICA set out to introduce a comprehensive Health Care Reform Program to address these issues and develop an equitable and efficient health system providing high-quality services.

4. KYRGYZ HEALTH REFORMS: KEY LEGISLATIVE CHANGES

54. In 1992, the Kyrgyz Government introduced a number of key legislations to establish platforms for systemic and holistic health reforms with objectives of (i) Reducing inefficiencies; (ii) Improving equity and access (financial and geographic); and (iii) Improving quality.[18]

55. The Health Protection Act established the general legal framework and articulated roles and responsibilities of state bodies involved in health protection. The Medical Insurance Law provided a basis for financing the health care system through medical health insurance (compulsory and voluntary). The Sanitation Law, referring to the Article 35 of the Constitution, defined measures to ensure rights of citizens to sanitation and environmental health safety – and delegated responsibility for overseeing this to the Department of Sanitation and Epidemiology within the MOH.[19]

56. In 1993, user fees were introduced for hospital services. In 1994, Kyrgyz Government endorsed the 'Healthy Nation' followed by a Memorandum of Understanding between the WHO Regional Office for Europe and the Kyrgyz MOH to implement a comprehensive Health Care Reform Program – appropriately named after the Turkic Epic Manas, which epitomizes the spirit of the Kyrgyz people. A Manas Policy Team was established to lead the implementation the reform program. The same year, in line with the Manas Program, the Government agreed to implement a Health Insurance Demonstration Project in the Issyk-Kul region funded by USAID.[20]

57. In 1994, the Kyrgyz Government approved the National Health Policy, which aimed to: (i) Develop a unified health financing system; (ii) Establish an FM-centered primary care system; (iii) Downsize the hospital sector through rationalization of (a) rural hospitals (SUBs) by closing down, transforming into outpatient facility, or reducing number of beds; (b) specialty hospitals by merging with general hospitals, and Republican Institutions, following a detailed study; and (iv) Create more equitable resource allocation systems.

58. In 1994, the Social Fund, a quasi-government authority, was set by merging the Pension Fund, the Employment Fund and the Social Insurance Fund, with responsibility to collect all social and health insurance payments – which amounted to 39 percent of the payroll tax.

59. In 1996, the Kyrgyz Government approved the Manas Health Care Reform Program and in 1999 revised its Health for All Policy ("Health Care in XXI Century"). In 1997, the MHI scheme was introduced,[21] and the autonomous MHIF established. The MHIF became an agency of the MOH at the end of 1998. The Law on Health Financing was introduced to develop a Single Payer System that "integrates financial resources for health care from state budget revenues and mandatory health insurance contributions for the purpose of a single-pipe funding of public health services, curative medical services and pharmaceuticals."[22]

60. Health expenditures have remained low by regional and international standards and in 2003 was 4 percent of the GDP, comprising 2.1 percent public sector and 1.9 percent private sector (See Annexes 5 and 6 on Health Expenditure and Health System Financing). The financing reforms aimed to improve allocative and technical efficiency by changing the provider payment systems based on line-item budgeting to capitated payment to newly established primary care organizations – FGPs, case-based payment to hospitals and fee-for-service payment to outpatient specialists (See Annex 7 for hospital payment systems).

61. Changing payment systems required organizational and legal changes, including: (i) Creating providers with increased managerial autonomy, such as stand-alone FGPs or autonomous hospitals able to

contract with the MHIF; (ii) Restructuring of PHC to develop FGP units and larger PHC centers with FGPs as structural units; (iii) Rationalization of outpatient polyclinics (for children, adult and women consultation) by establishing multi-profile polyclinics as a first step to establishing FGP centers; (iv) Defining an essential package of services to be provided by FGPs; and (v) Developing a referral and counter-referral system.

62. Official co-payments were introduced with the Single Payer Reforms for: (i) Specialist outpatient care both in FMCs and Ambulatory-Diagnostic Departments; and (ii) inpatient care in hospitals.

63. Legislative changes also aimed to rationalize the organizational structures. In 2000, the oblast health departments were abolished and replaced by Regional Health Committees.[23] The MOH role has gradually evolved into one of stewardship with responsibility for policy making and budget setting. The decentralized nature of the health system (to oblast, city and rayon levels) and local-government financing of health providers requires close collaboration with regional administrative structures and the center to implement policies.[24] The MOH has retained the roles of: supervising the activities of all health institutions – including training and research institutions – and approving their policies and programs; administering Republican health facilities; and implementing and monitoring of health reforms trough the Department of Reform Coordination and Implementation (which succeeded the Manas Health Policy Unit). The Department coordinates support of international and bilateral agencies for PHC reforms, and established successful collaboration between the WB, WHO, USAID, ADB and the SDC.

64. Three key laws were enacted in 2003: "On the Single Payer System in Health Financing of the Kyrgyz Republic", "On introducing amendments and additions to the Law of the KR ", and On Health Insurance of Population of the KR" stipulating payment of insurance premiums from the republican budget for mandatory health insurance of pensioners. In the same year, the "Concept on health financing system reform in the Kyrgyz Republic up to 2006 and health care development up to 2010" was adopted.[25]

5. KEY DEVELOPMENTS IN PRIMARY HEALTH CARE

65. A key feature of the PHC reforms in the Kyrgyz Republic is the comprehensive and multifaceted approach to development of PHC adopted by the MOH. Key elements of the PHC reforms included:

66. a) Organizational changes: Establishing new PHC provider structures in form of FGPs with increased managerial autonomy; Restructuring of PHC to develop FGP units and larger PHC centers with FGPs as structural units; Rationalization of tripartite outpatient polyclinics into multi-profile polyclinics or FGP centers; introduction of contracts between MHIF and FGPs and PHC organizations; establishing a unified purchaser; introduction of competition on the demand side by introducing of choice for users to select FGPs through open enrollment; and establishing more inclusive decision making mechanisms at the local level.

67. b) Changes in financing, resource allocation and provider payment systems: Introduction of mandatory health insurance; State Guaranteed Package of Services which ensures free PHC services to all Kyrgyz citizens; increased health expenditure to PHC level; new provider payment systems based on per capita financing mechanisms; introduction of partial fundholding scheme, where FGPs control budgets for essential drugs (within the Outpatient Drugs Package).

68. c) Changes in service provision: Defining an essential package of services to be provided by FGPs; introduction of an essential drugs list; introduction of evidence-based guidelines; refurbishment and equipping of the PHC centers; developing referral and counter-referral systems.

69. d) Training and re-skilling of human resources: Retraining of therapeutists (generalist doctors), gynecologists, pediatricians and narrow specialists working at PHC level as family physicians; training a cadre of FGP nurses; establishing a continuing medical education program for family physicians and FGP nurses; implementing health management training for managers.

5.1. ORGANIZATIONAL CHANGES

70. The restructuring of PHC began in 1995 in the Issyk-Kul region, with the retraining of PHC team members (see section on training), refurbishment and equipping of FGP centers, and establishment of FGPs throughout the rural community. The reforms were supported by USAID and implemented as part of the ZdravReform Project led by Abt Associates. By 1996, enough FGP teams had been trained for 83 FGP centers, which began an enrollment campaign to register patients. The PHC reforms covered rural as well as urban areas. In urban areas the rationalization of the tripartite polyclinic structure into unified and integrated polyclinics staffed by FGPs began in 1996.

71. In 1996, the Kyrgyz Government secured WB assistance to support the implementation of the Manas Health Care Reform Program. The four-year Health Sector Reform Project (1996 to 2000) was designed to extend the PHC reforms to Bishkek and Chui regions. In 1997 and 1998 the PHC reforms supported by USAID and WB were rolled-out to Chui, Jalal-Abad and Osh regions and Bishkek City. Between 1998 and 1999, the FGP practices in Chui region and Bishkek City began an enrollment campaign. In 1998, partial fundholding was introduced in 14 FGPs in Issyk-Kul region and per capita payment scheme introduced to FGPs in Bishkek City. In 1999, under the Social Sector Reform Project, the ADB further extended the PHC reforms to two southern oblasts.

72. There are now three types of PHC providers in the Kyrgyz Republic: (i) FAPs (feldsher-obstetrical ambulatory points), (ii) FGPs, and (iii) Family Medicine Centers (FMCs).

73. FAPs are the smallest health care facilities[4], situated in remote areas and meant to serve a population of 500-2000. Usually staffed with at least two specialists (a feldsher and midwife), the scope of FAP services is limited to the very basic care, antenatal and postnatal care (deliveries are referred to the nearest hospital), immunization and health education.

74. FMCs are the largest outpatient health facilities, staffed by 10-20 specialists. Their scope of services ranges from general care to specialized care and instrumental diagnostics, thus combining PC services and secondary outpatient care. FMCs are renamed oblast- and rayon-level polyclinics but are now staffed by FGPs and narrow specialists, who also work in outpatient departments.

75. FGPs are being developed as the main providers of PHC, to provide comprehensive PHC based on FM principles to the population registered (enrolled or assigned) with the practice. An FGP usually consists of three to five doctors comprising physicians, pediatricians and obstetrician-gynecologist, three to five nurses, and a practice manager, although these numbers vary by region and FGP. The physicians who work in FGPs are those who have been (or are being) retrained as FMPs. There are two organizational forms of FGPs: (a) freestanding and autonomous and (b) a unit within a freestanding polyclinic (in urban areas). FGPs have to meet licensing and accreditation criteria before they can be contracted by the HIF.

76. A key objective of the PHC reforms is to expand to the whole of the Kyrgyz Republic. Currently, independent FGPs dominate in rural areas, and the polyclinics in urban areas have been replaced by FMCs.

5.1.1. Choice

77. Citizens, who were previously assigned to a district physician according to their place of residence, now have a choice of FGPs in urban areas; but in rural parts, due to a limited number of providers, they are assigned to an FGP within the rayon catchment boundaries. Citizens can change practices at each annual registration period. Practices that attract more patients receive more capitation funds and hence have an incentive to provide high-quality and user-friendly services to attract patients.

5.1.2. Unified System of Purchasing Care

78. A unified system has been established for purchasing services from PHC level – addressing the fragmentation that existed. The MHIF and its Territorial Departments (TD-MHIF) contract PHC providers and pay them for the services they provide to insured persons and those in exempt categories. In PC, physicians receive payment based on the number of people registered with them. Hospitals are paid according to the case mix and the number of cases they treat. The Republican MHIF pools payroll tax revenues (collected by the Social Fund) and Republican budget transfers for children, pensioners, and those who receive social benefits (which come from republican tax revenues). The TD-MHIF is a purchaser of health services using all funds including taxes collected at the local level.

5.1.3. Decision Making at PHC Level

79. Within each region there are a large number of stakeholders involved in decision making, including: (i) The oblast governor; (ii) Oblast Supervisory Board; (iii) Territorial Department of the

[4] FAPs are not independent legal entities (so they are not facilities) but rather units accountable to FGPs. FAPs are located in villages with populations less than 1500. In general, FAPs serve 24.4% of the population.

Mandatory Health Insurance Fund (TD-MHIF); (iv) Oblast Merged Hospital (OMH) responsible for inpatient care; (v) Oblast Family Medicine Center; l[5]; (vi) Oblast Sanitary Epidemiological Service (SES); (vii) Oblast Health Promotion Centre; (viii) FMC; and (ix) Oblast Medical Information Center.[26]

80. At the rayon level, a similar stakeholder grouping exists with: (i) an Akim (head of the rayon); (ii) Rayon Supervisory Board; (iii) Territorial Hospital (TH) with OPD[6]; (iv) Rayon FMC including FGPs; (v) Rayon Sanitary Epidemiological Services; (vi) Rayon Health Council, which is a grouping of the Village Health Committees[7]; and (viii) Council's Interdepartmental Emergency and Anti-epidemic Commission.[27]

81. At the village level, the key stakeholders involved in decision making comprise: (i) the head of a group of villages (Ayil Okmotu); (ii) FGPs which have direct contracts with the TD-MHIF[8]; (iii) FAPs, staffed by feldshers and/or nurses/midwives; (iv) Village Health Councils in Naryn Oblast.[28]

82. There are good examples of initiatives that have succeeded in engaging the community at the local level in decision making related to PHC. For instance, the Kyrgyz-Swiss Health Reform Support Project has undertaken studies to ascertain user perspectives on health care services[29] and co-payment policy[30], as well as access and quality of PHC[31]. Following these studies, the Kyrgyz-Swiss Health Reform Support Project has successfully developed a model that allows community participation in decision making and priority setting. This model of health promotion through community action (Jumgal Model) enables rural communities themselves to analyze their health priorities and establish health committees to work voluntarily to improve health in their villages. The model has established a process whereby the health problem in the village is addressed by people themselves, facilitated by trained FGP/FAP staff, then through community action involving the health committee. Several health-promotive activities have been successfully implemented.[32]

5.2. Financing, Resource Allocation and Provider Payment Systems in PHC

83. There are significant inequities in resource allocation to regions. Government per capita health spending by region is highly inequitable and can vary by almost three-fold, with lowest expenditure in Batken and highest in Bishkek. Bishkek City attracts most of the Republican budget to pay for the Republican hospitals (Figure 3).

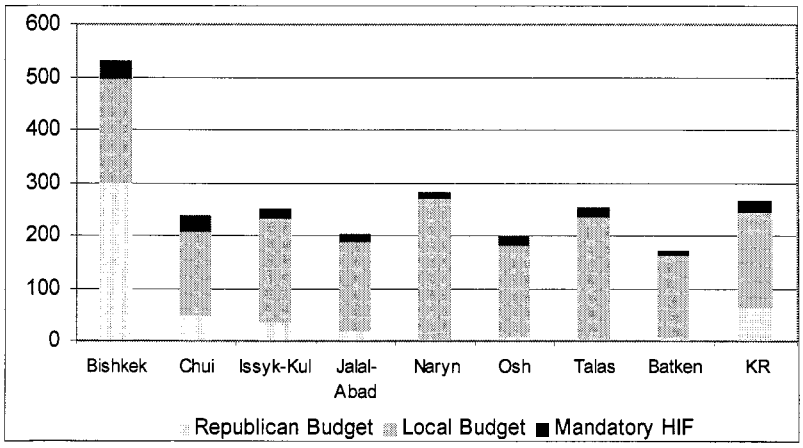
[5] OPD is not involved in the decision making process because the OPD is a department of the hospital.

[6] See under 5.

[7] These Councils are only in Naryn and Talas oblasts where Kyrgyz Swiss Health Reform Support Project works in area of Community Action for Health.

[8] Only freestanding FGPs which are legal entities can be directly contracted by the MHIF (currently there are 31 freestanding FGPs). If FGP is a part of FMC then contract is made with the FMC.

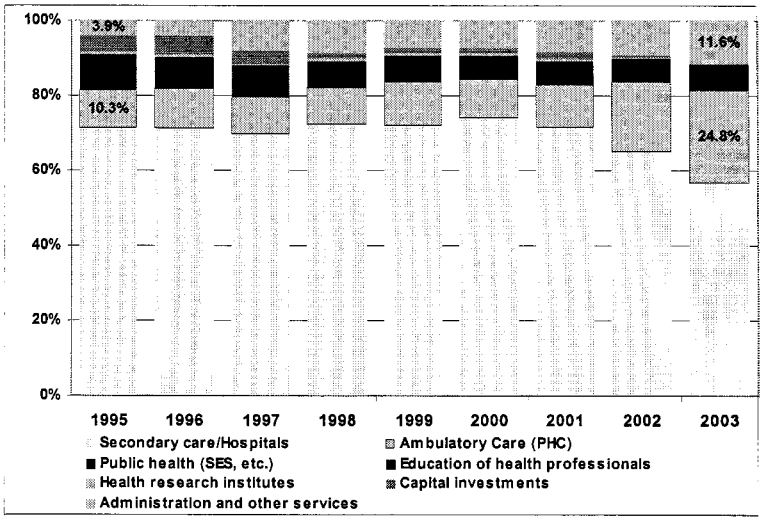
Figure 3: Government Per Capita Health Spending (in Kyrgyz Soms) by Region, 2001



Source: Treasury, MHIF, National Statistics Office

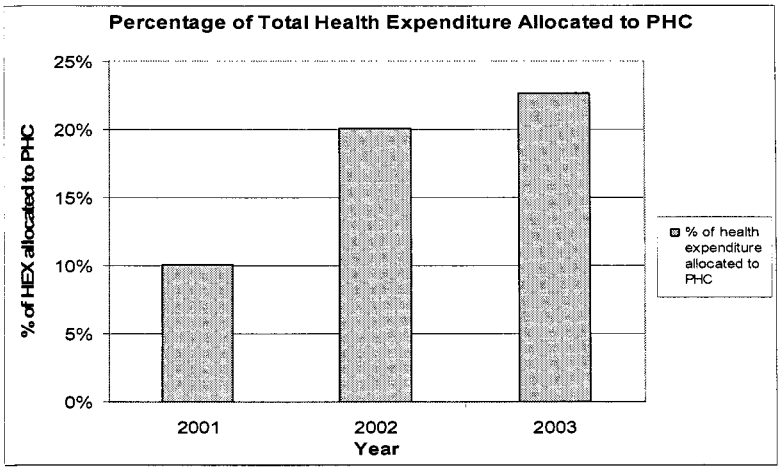
84. As well as regional inequities in resource allocation, there is allocative inefficiency by level of care. In 1994, 7 percent of the total health care budget was allocated to PHC, increasing to 10.3 percent in 1995 as compared with 71.7 percent allocated to hospitals. By 2003, share of PHC had increased to almost 25 percent while that for hospitals declined to 56.8 percent of the total health expenditure (Figure 4 and Figure 5).

Figure 4: Health Expenditure by Function and Level



Source: Ministry of Health, Health Insurance Fund

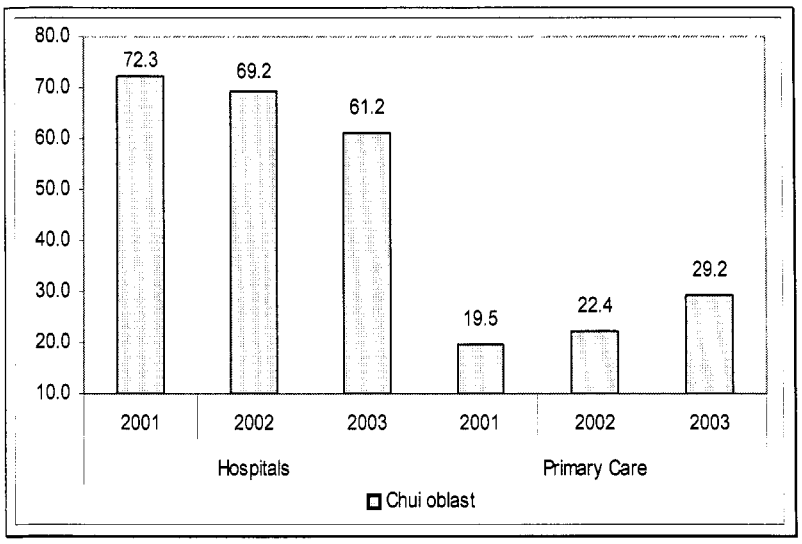
Figure 5: Percentage of Total Health Expenditure Allocated to PHC



Source: Ministry of Health, Health Insurance Fund

85. In advanced reform regions, such as the Chui Oblast, that have successfully implemented PHC reforms, there has been a marked shift in the proportion of health expenditure allocated to PHC, which has reached 30 percent of total health expenditure (Figure 6).

Figure 6: Health Expenditure on Hospitals and PHC in Chui Oblast (2001–2003)



Source: Health Insurance Fund

5.2.1. Provider Payment Systems for PHC and the Program of State Guarantees

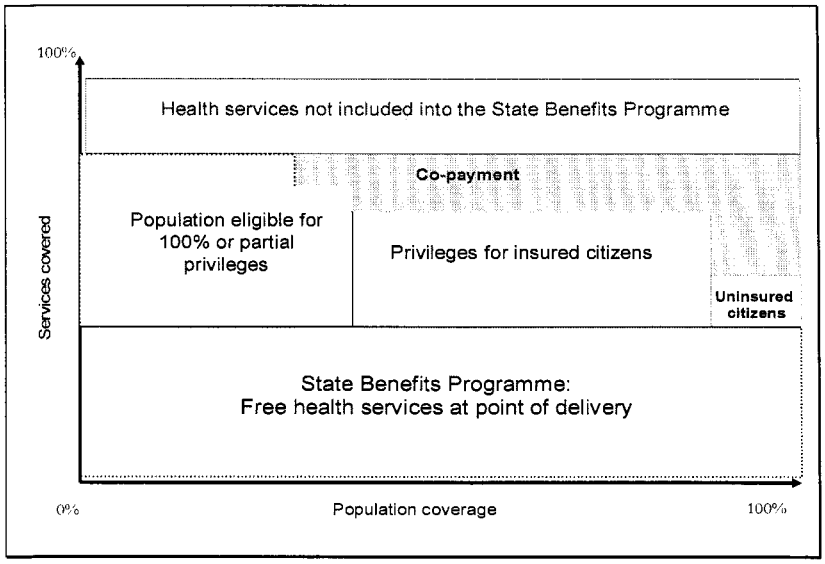
86. Since 2004 all PHC providers are paid on capitation. The FMCs and FGPs (including FAPs) are paid a capitation fee per user registered with them from TD-MHIF. The per capita fee covers FGP team salaries, basic medical equipment and drugs. A planned move to partial fundholding is currently being discussed (where family physicians will be given budgets to purchase specialist outpatient services).

87. The Program of State Guarantees, also known as the State Guaranteed Basic Package was introduced in 2001. The Package defines the health services and entitlements of various categories of the population. The Program of State Guarantees provides free basic PHC services for all citizens, regardless of their insurance status and enrollment, as part of the State Guaranteed Benefits Package. Citizens not covered under the MHI scheme are subject to formal co-payments for referral services in outpatients or hospital inpatient services provided by narrow specialists.[9]

88. Citizens insured under the MHIF receive access to an outpatient drug package that provides certain drugs at reduced rates and lower co-payments for referral services in outpatients and as inpatients in hospitals.

89. The pooled oblast budget funds pay for the full costs of care for persons who are in exempt categories and who do not need to contribute co-payments toward services. The complementary package is funded by the payroll taxes collected by the Social Fund and transferred to the MHIF, and transfers from the Republican budget to the MHIF (Figure 7).

Figure 7: State Benefits Package



90. In line with the Single Payer Reforms, official co-payments were introduced gradually in waves: initially in Issyk-Kul and Chui in 2001; Talas and Naryn in 2002; Jalal-Abad and Batken in 2003; Osh and Bishkek Cities in 2003; and in Osh Oblast in 2004. The MOH now sets the level of co-payment based on the co-payment policy enacted in 2003.[33] Co-payment levels for specialist outpatient care vary by type of service provided. For inpatient care patients pay a flat fee per admission. The level of co-payment depends on the insurance status and the service provided. For instance, admissions for surgical interventions attract higher co-payment than for diagnosis and treatment. Co-payments made by insured patients, for services (such as outpatient specialist and inpatient care) when referred, are lower than co-payments made by uninsured patients. Patients who use outpatient specialist and inpatient care without referral make higher co-payments than patients with referral.

[9] Insured patients pay 50% of the service cost according to the price list. Consulting services of outpatient specialists included in the State Guaranteed Package (Benefit package) are free if patients are referred by FGP.

91. Some population groups are fully or partially exempt from paying co-payments. Providers receive a higher fee from the MHIF for treating exempted patients. This way, they do not have incentives to favor patients who can afford co-payment. These population groups include low-income pensioners, cancer patients, TB patients and World War II veterans. Hospitals set aside a reserve fund to provide exemptions for those who cannot pay.

92. In addition to the official out-of-pocket payments, there are semi-official user charges for consumables (e.g., drugs and medical supplies), unofficial user fees or under-the-table payments, and fees charged by private providers of health services for goods and services (the largest category of which are pharmaceuticals). Collectively these constitute over 50 percent of the total health expenditure.

5.3. CHANGES IN SERVICE PROVISION

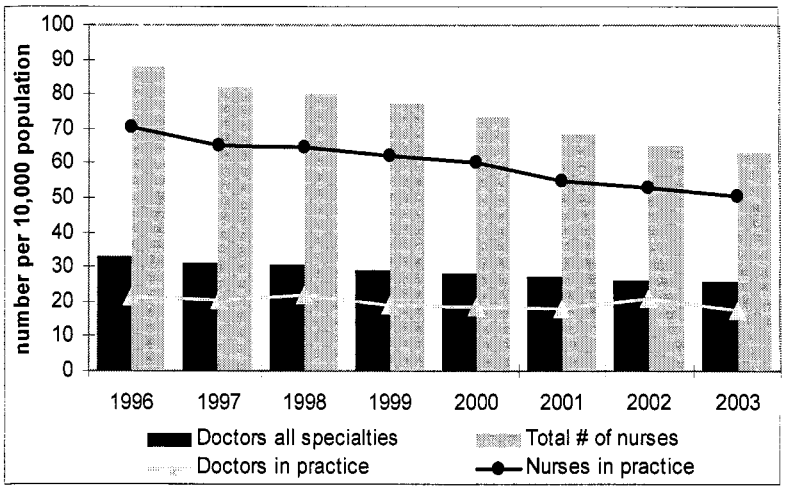
93. In addition to the State Guarantees, which specify core services to be delivered to the population, there has been a positive movement to enhance the quality of services through development and implementation of evidence-based care guidelines. The guidelines also help coordination of primary and secondary care levels by defining thresholds for referrals.

94. The rationalization of the tripartite polyclinic structures into unified FGPs and FMCs has created an enabling environment for delivering holistic care for patients, health promotion and prevention activities. The changes in service provision will be analyzed in detail in the next chapter.

5.4. DEVELOPMENT OF HUMAN RESOURCES IN PRIMARY HEALTH CARE

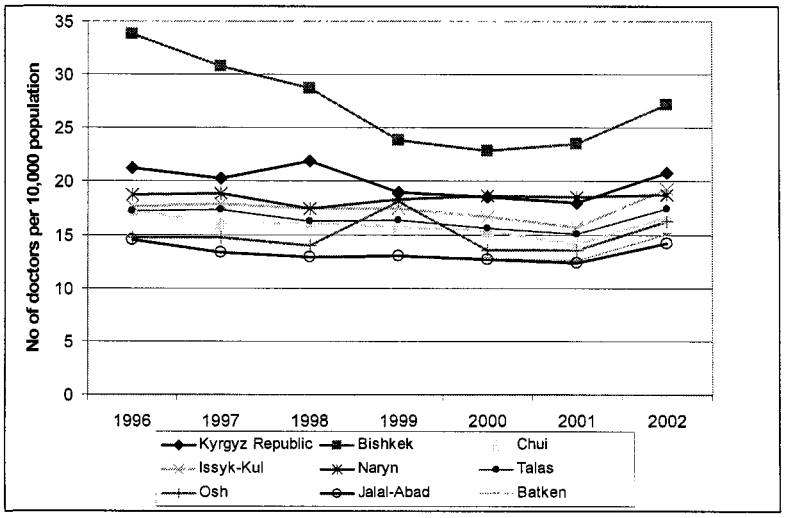
95. By international standards, the Kyrgyz Republic has a large number of doctors. The number of physicians per 1,000 people at start of transition was 3.2 as compared with the OECD average of 2.1 per 1,000. The number of doctors and nurses declined between 1996 and 2003 but much of the decline has been in the number of nurses (Figure 8).

Figure 8: Number of Doctors and Nurses per 10,000 Population



96. However, despite an excess of doctors and health personnel, inequities in the distribution of the health workforce exist with a shortage in rural regions and a surfeit of doctors in the capital Bishkek (Figure 9).

Figure 9: Number of Practicing Doctors by Region



97. The shortage of health personnel in rural areas has worsened over the last five years, as medical graduates are unwilling to work in rural areas and there is no obligation to do so – as was the case in the Soviet period, with a mandatory three-year posting to rural areas.

98. A successful training program has been introduced to train doctors and nurses in FM. By the end of 2004, approximately 75 percent of the primary care physicians and nurses in the country had been retrained as family physicians and FGP nurses.

5.4.1. Training of Family Physicians

99. Family medicine was established as a specialty in the Kyrgyz Republic in 1997 as part of the PHC reforms, a key element of the Manas program. Family medicine training has been successfully introduced in the country since 1998. There are several training programs related to FM and FGP Nursing.

100. National efforts supported by international technical assistance aimed to institutionalize FM training at five levels: (1) undergraduate training for medical students; (2) post-graduate training – a two-year FM residency for doctors graduating from medical school; (3) Retraining program for physicians practicing as general practitioners; (4) continuing medical education (CME) for FM teachers, and for practicing family doctors and nurses; and (5) a bachelors degree program for PHC nurses.

101. Several short training programs were developed initially to start the process of training in FM. These short programs were gradually extended as retraining courses and specialist FM residency programs for doctors and a Bachelors program for nurses.

102. A one-year training of FM trainers (TOT) program was introduced in 1997. The program has both theoretical and practical elements and is delivered by US-trained family physicians and supported by USAID and WB. The trainers have been trained at the Center for Continuous Medical Education in Bishkek. Most of the trainers who have completed training now work either in the national network of FM Training Centers associated with the Center of Continuous Medical Education or for the Kyrgyz Medical Academy. By 2003, a total of 63 doctors had been trained as FM trainers. The program was

extended to doctors from neighboring countries; 12 doctors from Tajikistan were trained and nine from Kazakhstan.

103. The elements of the TOT programs have been developed into stand-alone training modules that can be used as short courses for CME for the FM Trainers and practicing family doctors from the Kyrgyz Republic and the neighboring countries. For instance, 26 doctors trained in the one-year WB- and DFID-financed TOT program in Uzbekistan have spent one-month clinical clerkships at the Bishkek FM Training Center. Similarly, the FM Nursing Faculty of the Kyrgyz State Medical Institute for CME has successfully piloted a two-week faculty development course for teachers from nursing schools.

104. An excellent four-month program to retrain doctors working in primary care as FMPs was introduced in 1998 with support of USAID and WB (Annex 8). The program is practical in its focus and the training content reflects local needs, developed with considerable input from local trainers with mentoring by international experts. The training is delivered mostly by local FM trainers but with occasional direct involvement of U.S.-trained family physicians. In addition, a two-month retraining program has been developed for nurses. The average age of the retrained family physicians (and nurses) is around 50 years.

105. In 1998, separate FM residency programs started at both the Kyrgyz State Medical Academy and the Center for Continuing Medical Education in Bishkek. Both of these programs relied heavily on specialty rotations in hospitals and had a high dropout rate. In 2001, with the help of ZdravPlus and AIHA (American International Health Alliance), these two institutions created a joint national FM residency program in Bishkek. The program is designed for 50 residents per year. In both 2003 and 2004, 42 residents graduated from the program. The number of new applicants to the program has since declined, probably due to the low status of FMPs and uncertainty regarding adequate income levels on graduation from the program. The residency training program was expanded to Osh in September 2004 and has 23 residents in the first class, equal to that in Bishkek.

106. To date, more than 2,200 doctors have been trained as FM specialists in the four-month retraining program for doctors who work in PHC.[34] The training, which began in Bishkek, Issyk-Kul and Chui regions in 1998 has been successfully expanded to Osh, Batken, Jalal-Abad, Naryn and Talas regions and is projected to reach more than 2,700 family physicians and 4,000 nurses by the end of 2005 (Personal correspondence, Dr Paul Fonken – STLI trainer, FM Training Center, Bishkek, 2004). (Figure 10 and Figure 11.)

Figure 10: Number of Doctors Retrained as FM Specialists

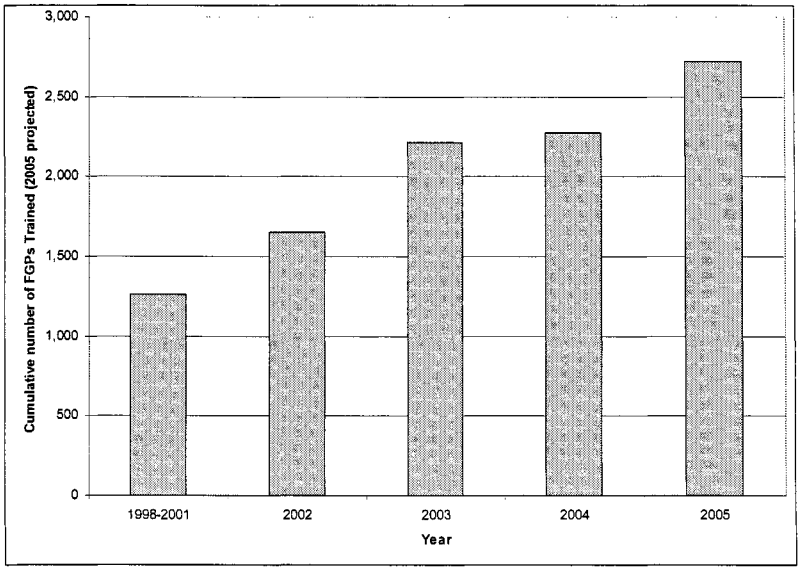
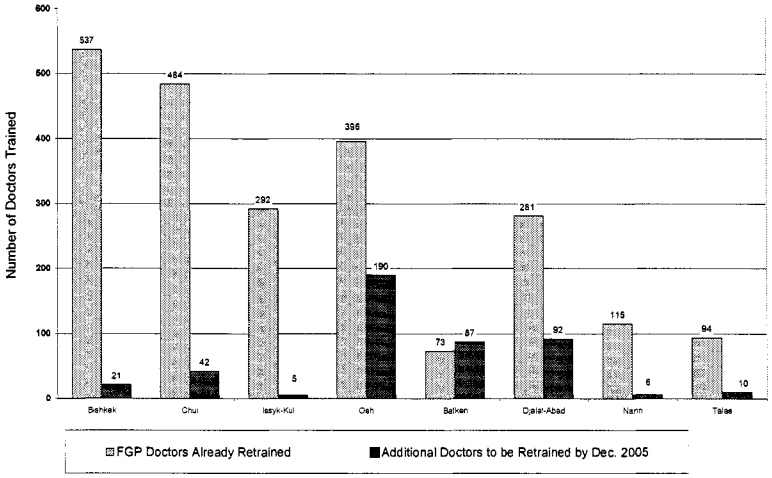


Figure 11: Number of Doctors Trained as FGPs (Cumulative) by Region



107. The focus of training in FM is now shifting to improving and expanding a national continuing medical education program (CME) for FMPs and for FM nurses. The 1,000 doctors and 1,400 nurses currently involved with the CME system receive ongoing training on an annual basis from the FM trainers associated with the Center of Continuous Medical Education. This new CME system, which began in Issyk-Kul Oblast in 2001, was expanded in 2004-2005 to include 3 pilot rayons in Osh and Chui Oblasts and all the FGP doctors in the other oblasts. In 2005, a similar CME program will begin for the FGP doctors in Bishkek and Osh cities.

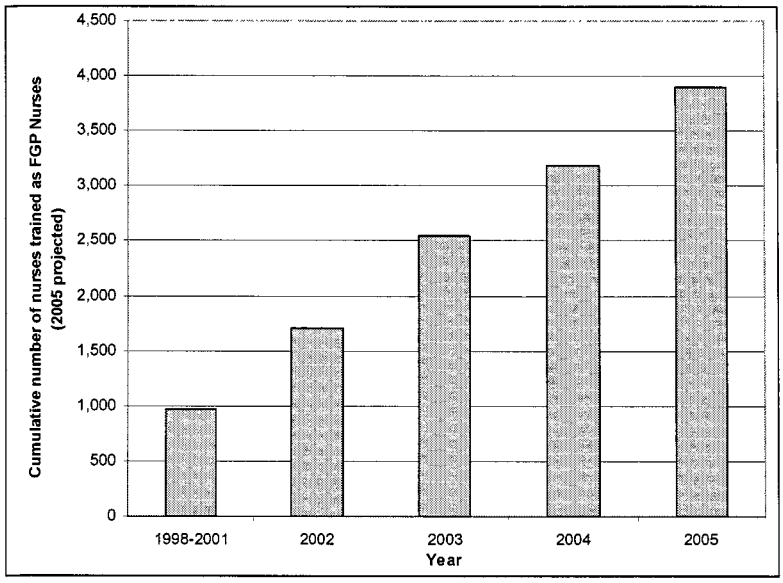
5.4.2. Training of Nurses

108. Retraining nurses in FM started in 1998. Nurses are a critical part of the new FGP model, which encourages teamwork and a broader role for FM nurses. Prior to introduction of FM reforms the nurses had a very basic role – acting as assistants to doctors, with very limited competence level. They had very little motivation or incentives for independent practice. They did not have access to basic equipment that would allow assessment and preparation of patients independently prior to their consultation with doctors or performing triage function. However, the training programs aim to improve the competence base of nurses to enable them to extend the scope of services they provide as part of the FM team.

109. A one-year training of nurse trainers began in 1997. The training is delivered at the Kyrgyz Postgraduate Medical Institute and is supported by ZdravPlus Project, funded by USAID. By 2003, 64 nurses had been trained as FM nurse trainers. As with the TOT program for FM doctors, this program was extended to nurses from the neighboring countries to train eight nurses from Tajikistan, six from the Kyrgyz Republic and three from Uzbekistan.

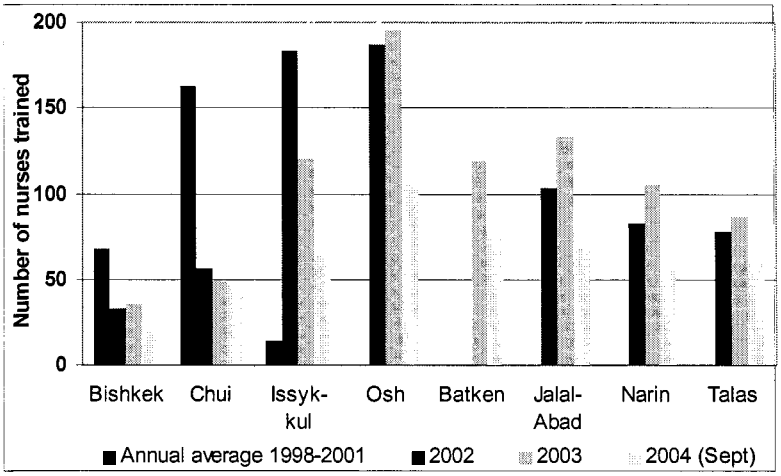
110. In 1998, the Postgraduate Medical Institute began a program to retrain nurses working in PHC level as family nurses to work in FGPs. The FM nurse trainers who have been trained work in Family Medicine Training Centers in regions and are involved in the program of retraining FGP nurses in villages and cities. Between 1998 and 2004 more than 3,200 nurses were trained as FM nurses (Figure 12). The cumulative target, by the end of 2005, is to train 3,700 nurses.

Figure 12: Number of Nurses Trained as FM Nurses (Cumulative)



111. The nurse training started in Issyk-Kul and Chui regions and gradually extended to others. The trained nurses are well distributed in all the regions (Figure 13).

Figure 13: Number of Nurses Trained (1998 to 2004 by Region)



112. The increase in the number of FM specialists and the number of trained FM nurses is against a backdrop of declining numbers of physicians and nurses in the Kyrgyz Republic as a whole.

5.4.3. Assessment of Skills of Family Physicians

113. Skills of the doctors retrained as FMPs were evaluated using Objective Structured Clinical Examinations (OSCEs) – a method widely used in Western countries for formative and summative assessment of medical students, introduced to Central Asia in 2000 to assess undergraduate medical students, doctors retrained as family physicians, and FM trainers.[35,36] The overall result of the OSCE was 60.2 percent with a range of 68 percent (in Jalal-Abad Oblast) and 51 percent in Chui Oblast. Scores for illnesses usually managed in PHC ranged from 56.4 percent for pneumonia to 63.3 percent for hypertensive disease. The study, which also included a survey of FGPs, identified a number of factors which adversely influenced the quality of family physicians' work, including: (i) unavailability of necessary equipment in some FGP centers (such as peak flow meters, ophthalmoscopes, otoscopes, ECG-machines); (ii) despite training, reluctance of FGPs to practice mixed admissions (i.e., caring for women, adult men and children); (iii) low motivation due to low wages and poor conditions of work; (iv) inadequate time devoted to practical-skills acquisition during training.[37] The survey also identified a number of factors which adversely influenced the quality of FGP nurses' work, including: (i) uneven distribution of nurse training in regions; (ii) inadequate equipment for nurses; (iii) inadequate utilization of the skills of the trained nurses; (iv) low motivation for nurses to work independently.

114. Findings have serious implications as supporting training without accompanying investments for equipment means that maximum gains from the training investment cannot be reaped.

5.4.4. Undergraduate Medical Training

115. There are seven medical faculties involved in undergraduate training: (i) Kyrgyz State Medical Academy, (ii) Kyrgyz Russian Slavonic University, (iii) Osh State University, (iv) Kyrgyz-Uzbek University in Osh, (v) State University of Karakol, (vi) A private university in Jalal-Abad, and (vii) State faculty in Jalal-Abad.

116. The Kyrgyz-Turkish University, which has a medical faculty, has not yet started training of physicians.

117. Presence of a large number of medical faculties means insufficient critical mass of staff and training facilities to guarantee high quality of training but also results in the overproduction of medical graduates in a country that already has an excess number of doctors. To meet the needs, two medical faculties and an annual intake of 400-500 students are sufficient. The numbers of state-financed medical students are controlled centrally but there are no limits on the admission of commercial students, including foreign students. As the state budget is not adequate to cover the running costs of medical faculties and training costs, there is an incentive for the medical faculty to admit an excess of medical students – especially those that are fee-paying, which constitute around 77 percent of the student body and are a source of important income for the faculties. Consequently, the current intake is over four times the required figure, with around 1,100 students admitted in 2002.[38] This leads to overproduction of undergraduate medical students who are unable to find jobs in the health sector when qualified. One study estimates that on graduation, only 25 percent of medical graduates find employment.[39]

118. There are two chairs of FM: (i) at the Kyrgyz State Medical Academy, and (ii) the Kyrgyz State Medical Institute for Retraining and CME. The Kyrgyz State Medical Academy provides training in FM to undergraduate medical students as well as a residency program. The other remaining medical faculties have no chairs of FM and their undergraduate medical students receive no training in FM.

119. FM teaching in the undergraduate curriculum is limited. The Ministries of Health and Education jointly approve the medical school curricula. The Soviet model of three-pronged undergraduate medical training prevails in all the medical faculties, including the Kyrgyz State Medical Academy, with students choosing at entry to university therapeutists, pediatrics, and hygiene/epidemiology. Hence, generalist training at undergraduate level does not exist: for instance, general physicians are not trained in pediatrics and vice versa. Although the system of central planning maintains uniform standards across the country, it hinders innovation and adaptation to changing needs. The faculties can vary approximately 15 percent of the whole medical curriculum from the standard specified by the MOE and the MOH. This limits introduction of new methods and courses.

120. The 'spiral' curriculum used in the Kyrgyz Republic is based on a pre-Flexenerian model where the students study basic diseases followed by more complex ones in the same discipline. The faculty structure is hierarchical and designed to map onto the curriculum, for instance, with separate kafedra teaching basic examination skills and general and specialized subject areas within a discipline. Hence, the curriculum is designed to produce specialists rather than generalists, utilizing didactic teaching methods, with an emphasis on theory, disease and cure rather than health, normal development, prevention and promotion. It is not surprising, therefore, that in 2002 around 70 percent of the graduates were admitted to narrow specialty residencies.

121. Although some donors have given important support to FM development, especially through the retraining program, there has been limited donor support for undergraduate and residency training programs in FM. For instance, a Council of Rectors of Central Asia (CoR) was established in 2001 with funding from USAID through ZdravPlus and AIHA. The Council, which includes 30 members from both state and private medical schools, meets on a regular basis to harmonize methods and improve curricula in line with international standards. The Council meeting in 2003 in Bishkek focused on clinical skills and assessment.

122. However, these initiatives are not addressing the fundamental problems with the undergraduate curriculum, which needs to be urgently reformed with substantial refinement of the existing practices to embrace modern teaching and training methods, as well as content that is more appropriate to needs of the Kyrgyz Republic.

5.5. DEVELOPMENT OF PROFESSIONAL ASSOCIATIONS

123. The Association of Family Doctor Groups and the Association of Hospitals were established in 1997. The Association of FGPs has a limited role in licensing and accreditation activities but plays an important advocacy role to inform key stakeholders at different levels on the benefits of reforms. The Association of Family Doctor Groups is active in lobbying parliamentarians.

124. The FGPA closely cooperates with the MOH in development of health laws, participates in issues related to activities of PHC providers, and also plays an important role in disseminating information on health reforms to family physicians and FGP nurses by training health facilities staff and through their Web site, bulletins and other publications, and conferences.

125. In 2003 the FGPA became a member of the World Family Doctors Association (WONCA).

6. CHANGES IN PRIMARY HEALTH CARE SERVICES: RESULTS OF THE PHC FACILITY AND TASK PROFILE SURVEYS

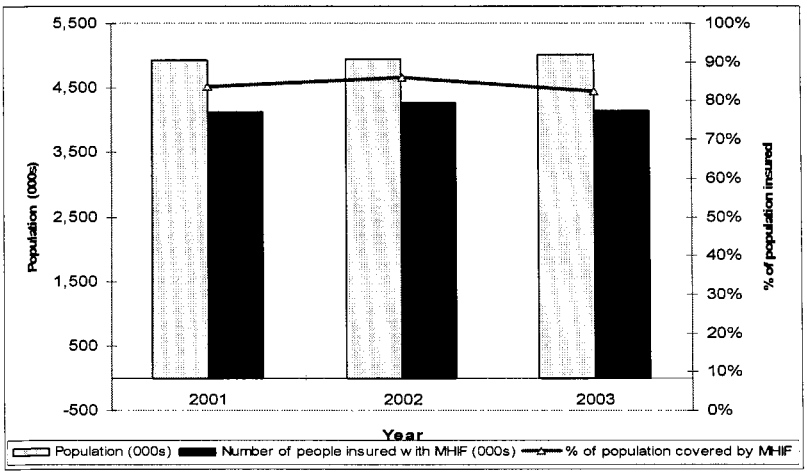
6.1. ACCESS TO PRIMARY HEALTH CARE

6.1.1. Coverage

126. The Kyrgyz Republic is one of the few post-Soviet countries that offers free basic PHC services for all citizens, regardless of their insurance status and enrollment, as part of the State Guaranteed Benefits Package. Citizens that are insured under the MHIF receive an outpatient drug package that provides certain drugs at reduced rates. Additionally, insured people have lower co-payment for referral care (for outpatient laboratory diagnostic tests, which are not included into the State Guaranteed Benefits Package, and for hospital services).

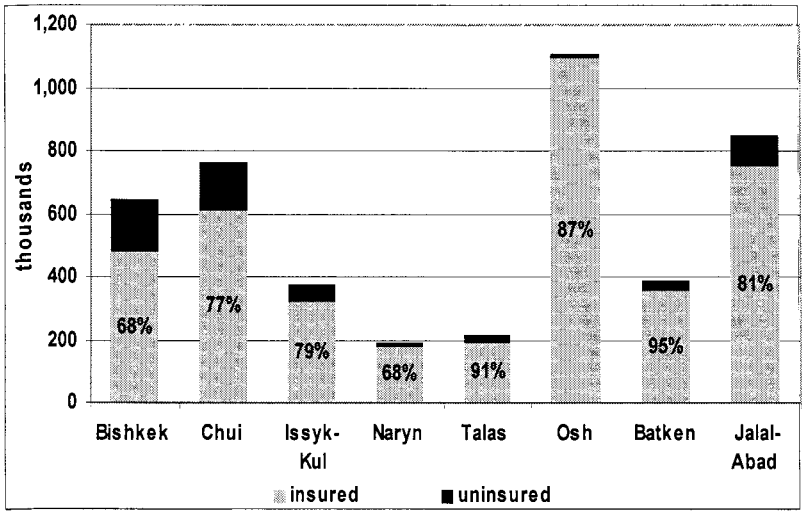
127. The MHIF coverage has expanded since 2001 and now covers around 80 percent of the population (Figure 14).

Figure 14: Population Coverage by Health Insurance



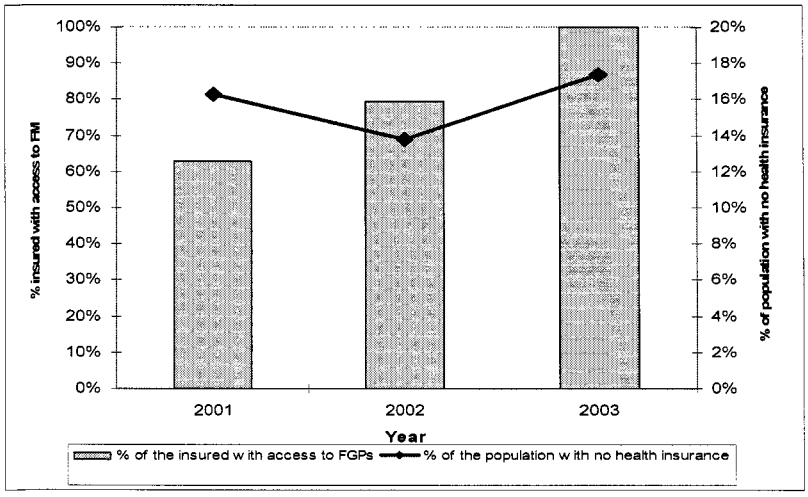
128. In 2003, around 75 percent of the population was enrolled with an FGP, although the enrollment rate varied by region (Figure 15).

Figure 15: Number of People (and % of Total Population) Enrolled with FGPs by Region in 2003



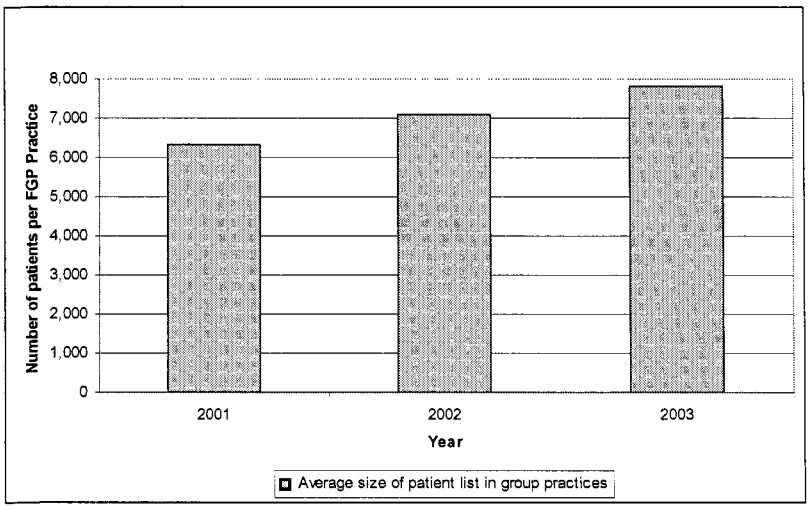
129. Although in 2003 around 18 percent of the population had no health insurance, almost 100 percent of the population insured by the MHIF was registered with an FGP (Figure 16).

Figure 16: Proportion of the Insured and Uninsured Population with Access to FGP



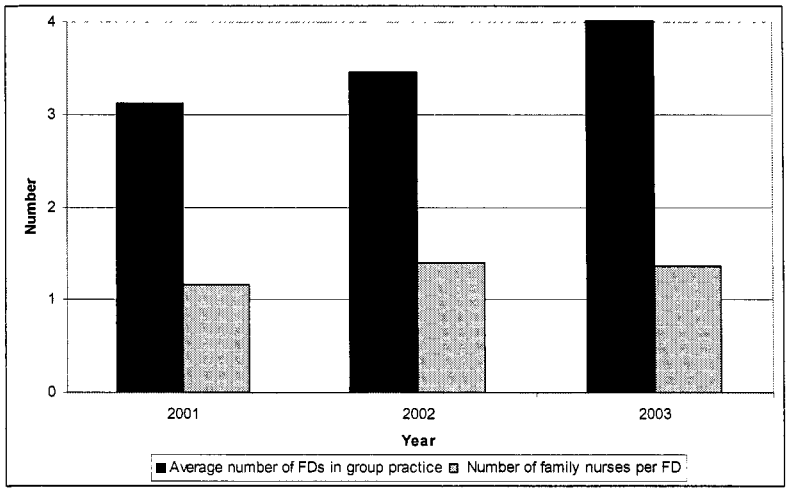
130. Between 2001 and 2003, the number of persons registered per FGP increased from 6,200 to 7,900 (Figure 17).

Figure 17: Number of Persons Registered per FGP



131. In the same period, the number of Family Physicians and nurses per FGP increased from 3.1 doctors to 4 doctors and from 1.2 nurses to 1.4 nurses (Figure 18).

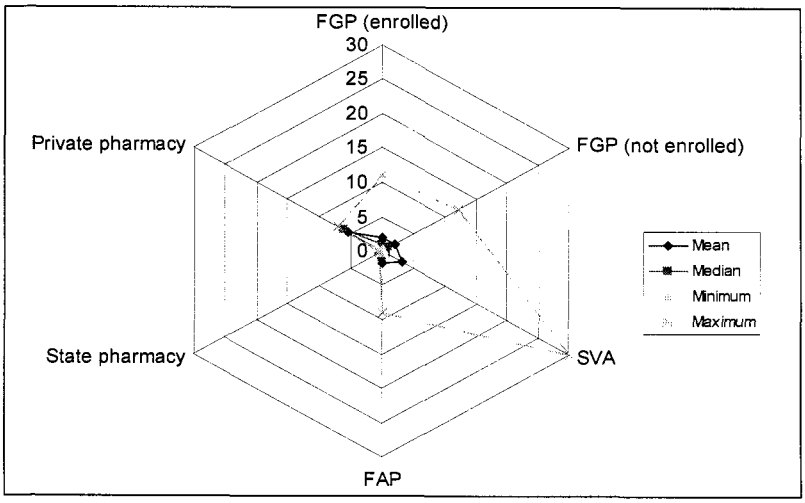
Figure 18: Number of Family Physicians and Family Nurses per FGP



6.1.2. Accessibility

132. There is good accessibility to PHC centers except in rural and mountainous areas where access can be very difficult. Primary health care facilities are located close to patients' homes, with a median distance of 1-2 km (Figure 19). For most patients (73%) the travel time to the nearest health facility is less than half an hour. The majority of patients walk to the health facility, and only one in three incur travel expenses when attending health facilities (26% in Bishkek to 43% in Batken). The highest costs are incurred by those who travel to health facilities by ambulance. Most people report being able to see a health professional within 30 minutes of arriving at a health facility.

Figure 19: Distance (in km) to PHC Facilities

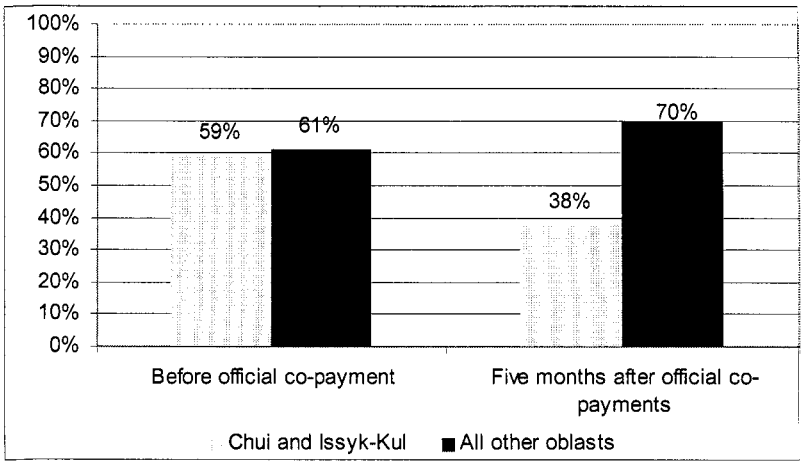


6.1.3. Affordability of Health Care

133. A household survey in 2001 found that of the households that needed health care in the year prior to the survey, 18 percent had found it very difficult to pay for such care and a further 42 percent reported difficulties. More than half of the households surveyed reported reducing regular consumption to meet health care costs, a third received help from relatives and a further 27 percent borrowed money – going into (or extending) debt. Just under half (46%) of households reported that, because of inability to afford health care, household members who had been ill in the year prior to the survey did not seek health care.[40] These figures, however, refer to all health services and drugs and preceded the introduction of official co-payments.

134. The introduction of official user fees has had a positive impact on the extent of unofficial under-the-table payments, which have declined.[41] A survey, undertaken by WHO, of patient expenditures for hospital care before and after the introduction of Single Payer Reforms found that official co-payments substituted informal payments and made them transparent[42] (Figure 20).

Figure 20: Introduction of Co-payments in Issyk-Kul and Chui Regions in 2001 and Proportion of Users Paying Health Care Personnel



Source: Mandatory Health Insurance Fund[10]

135. An important impact of the official co-payment policy has been the positive effect on the poor. After the introduction of the policy, patients entitled to exemption from co-payments experienced a four-fold reduction in their total direct expenditures when hospitalized – indicating pro-poor impact of policies.

136. A study conducted by the Kyrgyz-Swiss Health Reform Support Project in 2001 to elicit patient views about the co-payment policy showed that the acceptance of the policy was mixed but generally positive.[43] About 75 percent of the patients interviewed preferred the co-payment policy to the previous system of informal payments; low-income respondents hold the same opinion. Many insured patients noted that they paid less with co-payment than previously for the same treatment. Patients welcomed that they now knew of costs in advance and could prepare for it. Those interviewed acknowledged that health care was not free and that the sharing of the burden between the state and the individual was fair.[44]

137. Given the now-visible extent of co-payments, several local governments have argued for reducing their funding to the health sector, citing the revenues generated by co-payments. However, official co-payments have merely formalized and made more transparent the previously unseen and unmonitored forms of payments and hence do not represent new funds that can be used to fill funding gaps in the sector.

6.2. UTILIZATION OF PHC SERVICES

138. There are significant regional differences in consultation rates for PHC, with residents of Bishkek, Chui and Issyk-Kul (where FM reforms are more mature) twice as likely to consult a doctor as compared with those from other regions. Insurance status was significantly correlated with health service

[10] WHO study on discharged patients, Joseph Kutzin, 2001, WHO/DFID Health Policy Analysis Project (HPAP)

use, with those covered by the MHIF 1.27 times more likely to consult a health professional than those not covered – after controlling for age and region.[45,11]

139. The majority (73%) of those surveyed consulted with doctors working in the State sector. Most consultations were in health facilities: 30 percent of all consultations took place at the FGP where the patient was enrolled and 10 percent in the patient's home (as compared with 14% in 1994). The poor tended to use PC facilities, nurses and feldshers more frequently than the non-poor – who were better able to afford the higher costs of polyclinic and tertiary care.

140. Two-thirds of patients receive a prescription for at least one item, and nearly one-fifth receive a prescription for four or more items. Of these, the majority (77%) obtain all the items prescribed and a further 14 percent obtained some of the items. Only 9 percent did not obtain any items prescribed – a significant improvement on the situation in 1994, when only 66 percent obtained all the medicines prescribed, 23 percent obtained only a part, and 11 percent obtained none at all. However, when asked why they had not obtained the medicines, over half (61%) of respondents in the 2001 Household Survey cited that the drugs were too expensive, compared with a third (35%) in 1994. Thus, the main constraint appeared to be the patients' ability to pay for drugs rather than drug availability. However, this study was established before the Additional Outpatient Drug Package was introduced to enhance access to drugs and should be interpreted with caution.

141. More than three-quarters (77%) of patients incurred some costs as a result of using a health care service in the 30 days prior to the survey. Average expenditure on health care was 148 soms, of which spending on prescriptions accounted for two-thirds.[46]

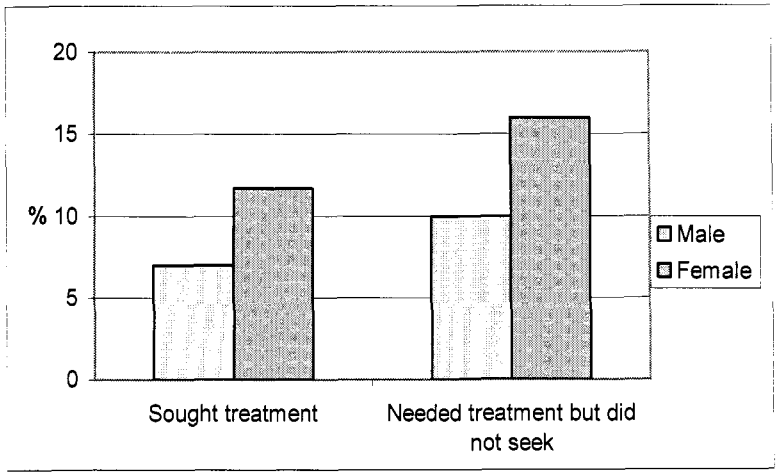
142. Just over one in five (22%) patients paid a fee for the consultation. This compared with a quarter (25%) in 1994. The percentage of population paying for services and the average amount spent varied according to the type of facility and provider. Only 10 percent of people who visited an FGP where they were enrolled reported making any payment, compared with 42 percent who visited an FGP where they were not enrolled. The amount paid was also higher at an FGP where the patient was not enrolled (mean 227, median 140 soms) compared with FGP where the patient was enrolled (mean 52, median 20 soms). There was no difference in the likelihood of making a payment for the consultation between those patients who reported being insured by the MHIF and those who did not.

143. Although the rich paid more in absolute terms than the poor, payments for health care represented greater burden for the poor than the rich; health care expenses for one member of the household constitute around 10 percent of the total household monthly budget for the poorest households, compared with 5 percent for the richest.

144. Around 10 percent of people surveyed sought treatment in the 30 days prior to the survey and a further 13 percent who needed treatment did not seek care (Figure 21).

[11] This study was done in February 2001, prior to the implementation of the co-payment policy.

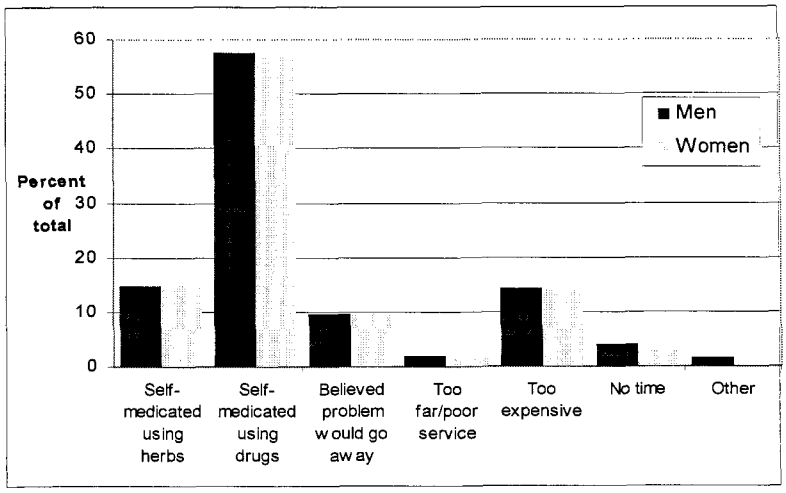
Figure 21: Percentage of Population Seeking Health Care in the 30 Days Prior to the Survey by Gender



Source: Falkingham, J. Health, health seeking behavior and out of pocket expenditures in Kyrgyzstan in 2001.

145. Many of those who did not seek care self-medicated using herbal treatments or drugs but around 13 percent cited that services were too expensive (Figure 22).

Figure 22: Reasons for Not Seeking Health Care

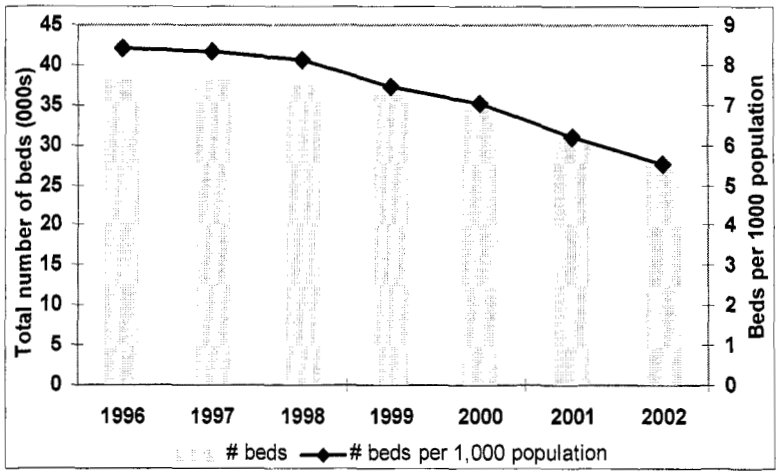


Source: Falkingham, J. Health, health seeking behavior and out of pocket expenditures in Kyrgyzstan in 2001.

6.3. UTILIZATION OF HOSPITAL SERVICES

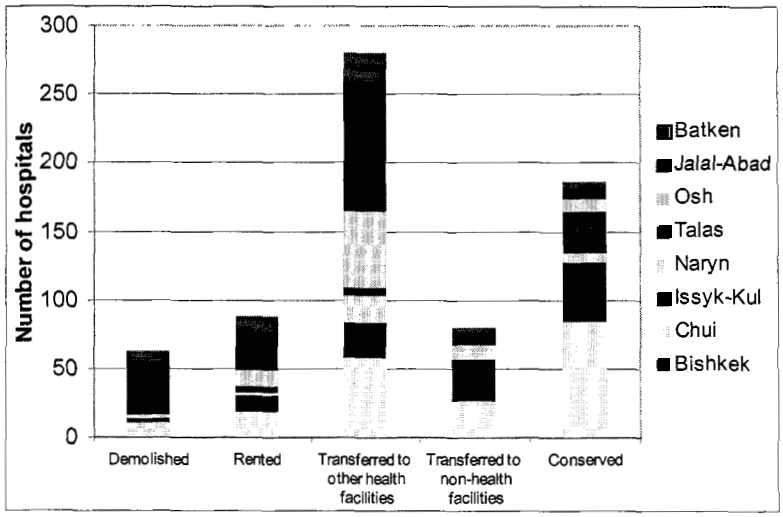
146. The Kyrgyz Republic inherited a vast health care infrastructure with 11.9 beds per 1,000 population in 1990, one of the highest in the ECA Region, as compared with 4.5 per 1,000 in the EU. The number of hospital beds has since gradually declined to reach 5.5 per 1,000 population in 2002 (Figure 23).

Figure 23: Number of Hospital Beds and Beds per 1,000 Population



147. However, much of the decline is due to closure of rayon hospitals with limited rationalization of the Republican facilities in Bishkek City (Figure 24).

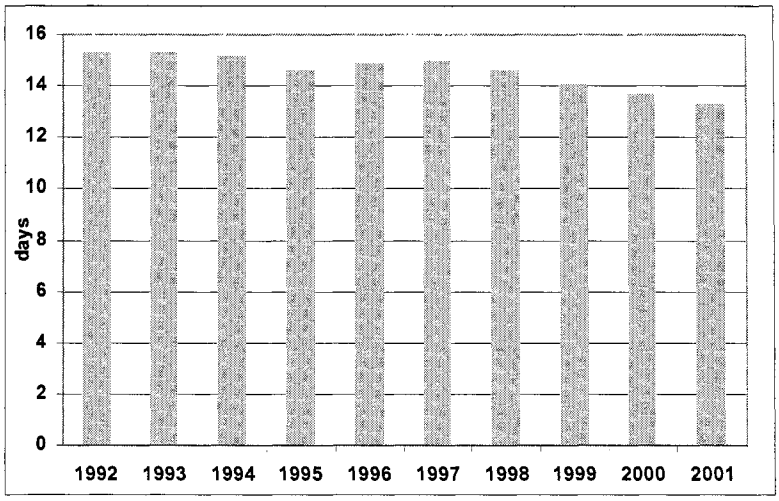
Figure 24: Hospitals by Region That Have Been Closed (2002)



148. The hospital admission rates in 1990 were 24[12] per 1,000 population per year, with an average length of stay of 14.9 days per inpatient admission. The average length of stay per admission remains high and in 2001 was 13 days per admission (Figure 25).

[12] It should probably be 124.

Figure 25: Average Hospital Inpatient Stay per Admission (in Days)



Source: WB database 2004

149. The Household Survey undertaken in 2001 showed that the most significant factors influencing hospitalization were economic status, age and chronic illness. After adjusting for other factors, the persons from the richest fifth of the households were significantly more likely to use hospital services and were 1.3 times more likely to be hospitalized as compared with those living in the poorest fifth of households. Chronic illness increased the likelihood of hospitalization by six times. A third of all hospitalizations were to Central Rayon Hospitals with Maternity and City hospitals accounting for one-fifth each of the total. Although the majority of inpatients were referred from a PHC unit – such as an FGP (22%), polyclinic (28%) or FAP (11%) – 22 percent of the hospitalizations were self-referred and a further 11 percent due to emergencies.[47]

6.4. PRIMARY HEALTH CARE SERVICE DELIVERY

150. The facility survey of 100 PHC units and 200 doctors provided information on the nature and scope of services currently provided in PHC setting (See Methodology section).

6.4.1. Range of Services Provided

151. All the FGP units surveyed responded that they provided general medical and services, general pediatric services, pediatric development checks and immunizations, with around 90-98 percent providing health promotion services and home visits.

152. Not all the FGPs provided General Obstetric and Gynecological services. Around 90 percent of the FGPs provided family planning services. Antenatal services were provided in all of the FGPs in intermediate and early reform regions but in only 88 percent of FGPs in Issyk-Kul. Around 90 percent of the FGPs provided postnatal care but much fewer provided intra-partum care, especially in Bishkek, an urban area with good access to maternity hospitals. This difference was statistically significant (Table 5).

Table 5: Women's Services

Service/activity	Advanced Issyk-Kul	Intermediate Bishkek	Early Osh	Advanced vs. Early T-test (p)	Advanced vs. Intermediate T-test (p)
General Obs and Gyns	76.5%	84.4%	88.2%	> 0.05	> 0.05
Prenatal care*	88.2%	100%	100%	<0.05	> 0.05
Intra-partum care*	58.8%	18.8%	64.7%	<0.05	> 0.05
Postnatal care	88.2%	93.8%	92.2%	> 0.05	> 0.05
Family planning	94.1%	96.9%	98%	> 0.05	> 0.05

153. More than 90 percent of the FGPs provided services for common chronic conditions, namely, diabetes, asthma, chronic heart disease and hypertension. Although the FGPs in advanced reform regions were more likely to provide this service as compared with early reform regions, the differences were statistically not significant. However, there was a difference in the proportion of FGPs providing mental health services, with around 88 percent of the FGPs in advanced reform regions providing services in comparison with intermediate and early reform regions. This difference was statistically significant (Table 6).

Table 6: Services for Common Chronic Conditions

Service/activity	Advanced Issyk-Kul	Intermediate Bishkek	Early Osh	Advanced vs. Early T-test (p)	Advanced vs. Intermediate T-test (p)
Diabetes	94.1%	96.9%	92.2%	> 0.05	> 0.05
Asthma	100%	100%	94.1%	> 0.05	> 0.05
Hypertension	100%	100%	94.1%	> 0.05	> 0.05
Ischemic Heart Disease	94.1%	96.9%	92.2%	> 0.05	> 0.05
Mental health*	88.2%	59.4%	58.8%	<0.05	<0.05

154. Almost all the FGPs provided services for managing acute respiratory and diarrhea illness. All the FGPs in Bishkek provided services for managing hepatitis as compared with 88 percent in Issyk-Kul and Osh. This difference was statistically significant. Around 80-90 percent of the FGPs provided services for tuberculosis and STI but only around 30-40 percent provided services for HIV patients, although the difference between the regions was not statistically significant (Table 7).

Table 7: Essential PHC Services for Infectious Diseases

Service/activity	Advanced Issyk-Kul	Intermediate Bishkek	Early Osh	Advanced vs. Early T-test (p)	Advanced vs. Intermediate T-test (p)
Diarrhea illness	100%	100%	98.0%	> 0.05	> 0.05
ARI	100%	100%	96.1%	> 0.05	> 0.05
Hepatitis A	88.2%	100%	88.2%	<0.05	<0.05
Tuberculosis	88.2%	81.3%	90.2%	> 0.05	> 0.05
STI	82.4%	90.6%	78.4%	> 0.05	> 0.05
HIV	29.4%	34.4%	41.2%	> 0.05	> 0.05

155. The proportion of FGPs providing extended PC services was lower than that for services for common conditions. Only 9-30 percent of FGPs provided nutrition/dietetics services with lowest proportion (9.4%) in Bishkek as compared with 23.5 percent in Issyk-Kul and 31.4 percent in Osh. This difference was statistically significant (Table 8). Around 44-73 percent of the FGPs provided minor surgery and day care observation, 34-45 percent provided ambulance services and 82-90 percent provided laboratory tests. The differences between the regions were statistically not significant (Table 8).

Table 8: Extended Primary Health Care Services

Service/activity	Advanced Issyk-Kul	Intermediate Bishkek	Early Osh	Advanced vs. Early T-test (p)	Advanced vs. Intermediate T-test (p)
Nutrition/dietician clinics*	23.5%	9.4%	31.4%	> 0.05	<0.05
Minor surgery	58.8%	59.4%	72.5%	> 0.05	> 0.05
Day care observation	70.6%	43.8%	72.5%	> 0.05	> 0.05
Ambulance services	47.1%	34.4%	45.1%	> 0.05	> 0.05
Lab tests	82.4%	87.5%	90.2%	> 0.05	> 0.05

156. Analysis of the data by urban and rural FGPs showed no statistically significant difference for most of the services except for intra-partum care and services to patients with hepatitis, which were more likely in urban areas as compared with mental health, and day care observation services that were significantly more likely to be provided in rural FGPs (Table 9).

Table 9: Service Provision by Rural and Urban FGPs

Activities	Urban	Rural	Significance (p)
Intra-partum care	35.8%	6.4%	0.0049
Hepatitis	98.1%	85.1%	0.0165
Mental health	54.7%	74.5%	0.0404
Day care observation	47.2%	80.9%	0.0004

6.4.2. Availability of Equipment

157. The availability of essential medical equipment in FGP units in advanced regions was compared with those in intermediate and early reform regions. There was no statistical difference in the availability of basic equipment that was present in most FGPs, such as stethoscope, thermometer, spatula, adult weighing scale, child weighing scale, measuring bar on wall, disposable needles and syringes, pelvimeter, vaginal speculum, obstetric stethoscope, sponge bowl, intravenous line, instrument tray.

158. A number of essential equipment typically present in Western PHC units were present in less than 50 percent of FGPs but no statistically significant differences in availability were noted between FGPs in advanced reform regions and intermediate/early reform regions. These included obstetric delivery kit, sphygmomanometer, pocket flashlight with adjustable focus, tape meter, examination table, otoscope, autoclave, kidney bowl, suture kit, catheter set.

159. A number of equipment, which would typically be available in advanced PHC units in European and North American countries, were rarely available in the Kyrgyz FGPs; but there was no statistically significant difference between advanced reform regions and intermediate/early reform regions. These

included respiratory nebulizer, ECG machine, adrenaline box, oxygen concentrator, cylindrical sterilization box, and surgical floor lamp.

160. Several types of equipment, commonly used in PHC, were widely available in FGPs in advanced reform regions but less so in intermediate/early reform regions. This difference was statistically significant and included ophthalmoscope, sight test chart, nasal speculum, reflex hammer and dressing kits.

161. When the availability of instruments and equipments were analyzed by urban and rural FGPs no statistically significant difference was noted for many equipment that were widely available in FGPs. These included thermometer, child scale, spatula, dressing kits, disposable needles and syringes, pelvimeter, obstetric stethoscope, intravenous line and sponge bowl. Several types of equipment were available only in less than 50 percent of the FGPs but no statistically significant difference was noted between urban and rural FGPs. These included catheter set, obstetric delivery kit, oxygen concentrator, adrenalin box, examination table.

162. However, statistically significant difference ($p<0.05$) was noted for the availability of several basic types of equipment that were commonly available in urban FGPs (>80%) but in only 50-70 percent of rural FGPs. These included adult scale, measuring bar on wall, instrument tray and vaginal speculum. Several other types of basic equipment that were available in over 75 percent of the urban FGPs were available in less than 50 percent of the rural FGPs. The difference was statistically significant ($p<0.05$) and included such equipment as ECG, ophthalmoscope, otoscope, autoclave, reflex hammer, tape meter, sight test chart, nasal speculum, kidney bowl, pocket flashlight with adjustable focus. Some equipment that was available in less than 55 percent of urban FGPs (such as sphygmomanometer, nebuliser, cylindrical sterilization box, floor surgical lamp, suture kit) were rarely (<10%) available in rural FGPs. This difference was statistically significant ($p<0.05$).

6.4.3. Availability of Drugs Used in the Management of Emergencies Commonly Encountered in Primary Care

163. In the FGPs situated in advanced, intermediate and early reform regions, no statistically significant difference was noted in the availability of around 25 different drugs used in the management of acute emergencies commonly encountered in primary care. However, statistically significant differences ($p<0.05$) were noted for FGPs in urban and rural regions for a few drugs: penicillin and Syntocinon (ergometrine) were more available in rural areas while paracetamol and to glyceryl trinitrate were available in urban areas.

6.4.4. Use of Clinical Guidelines

164. Evidence-based clinical guidelines on management of common conditions and guidelines for Integrated Management of Childhood Illness and Directly Observed Therapy for tuberculosis were more likely to be used in FGPs from advanced reform regions as compared with intermediate and early reform regions, but this difference was not statistically significant.

165. Similarly, these guidelines were more likely to be used in urban FGPs as compared with rural FGPs, although again this difference was statistically not significant.

6.4.5. Immunization Service

166. Immunization services for triple vaccine (Diphtheria, Tetanus and Pertussis) and oral polio and measles vaccine were provided in all the PHC units surveyed. There was no difference between advanced,

intermediate and early reform regions as well as between urban and rural FGPs. BCG vaccination was more often provided in rural PHC facilities as compared with urban facilities, and this difference was statistically significant. ($p<0.05$)

167. All the practices reported having appropriate cold chain facilities, although vaccine temperature statement sheet was more often available in the urban practices (98%) as compared with rural practices (87%). This difference was statistically significant ($p<0.05$).

6.5. Task Profile of Doctors Working in Primary Care

168. We approached 200 doctors in the three study regions and were able to interview 176 (randomly selected proportionate to size with 22 from Issyk-Kul, 64 from Bishkek and 90 from Osh) – a response rate of 88 percent. For data analysis we used descriptive as well as nonparametric statistics.

6.5.1. Practice and Personal Information

169. The age of respondents ranged from 26 to 62 years old. The mean age for Issyk-Kul was 48 years (range 37-60 with a standard deviation [SD] of 7), for Bishkek 41 years (range 26 to 61 with SD of 7.9) and for Osh 43 years (range 28 to 62 with SD of 8.4). The mean age for family physicians working in advanced reform region of Issyk-Kul was significantly greater than that for Bishkek and Osh ($p<0.05$).

170. Most of the respondents were female, comprising 91 percent of the family physicians surveyed in Issyk-Kul, 97 percent in Bishkek and 80 percent in Osh.

171. All the respondents were salaried for their main employment. Some of the respondents also had a second employment: 4.5 percent of Issyk-Kul PHC doctors were in self-employed positions without a contract, while 12.5 percent of doctors in Bishkek and 22.2 percent in Osh had additional salaried positions.

172. The number of hours per week spent by doctors in their main positions providing PHC services ranged from 5 to 66 hours, with a mean of 40.1 in Issyk-Kul, 37.3 in Bishkek and 40 in Osh. Not all doctors provided on-call emergency service. The number of hours per week for on-call emergency service per doctor ranged from 0 to 43 hours, with a mean of 7.2 in Issyk-Kul, 8.7 in Bishkek and 8.6 in Osh.

173. The doctors who had additional jobs spent only a few hours per week in these positions with an average of 0.6 hours in Issyk-Kul, 2.2 in Bishkek and 2.3 in Osh, although the range was up to 43 hours per week.

174. There was a significant difference ($p<0.05$) in the specialist status of doctors working in PHC: 100 percent of the doctors surveyed in Issyk-Kul had trained as FM specialists, compared with 78 percent in Bishkek (with 3% in training) and 73 percent in Osh (with 17% in training).

175. Out of a list of equipment comprising 25 items being used in PHC facilities in these regions, only 5 items revealed significantly different results between regions, with $p<0.05$ (see table below). Thus, hemoglobinometer, cholesterol meter, microscope and spirometer are being used in more PHC practices of Osh, while peak flow meter and urine catheter are being used in more practices of Issyk-Kul.

6.5.2. Use of Medical Equipment

176. The doctors were asked whether certain types of equipment were used on site by the doctor or another doctor in that PHC unit on site. The responses were compared by reform stage and urban-rural status.

177. Several types of equipment, such as disposable syringes and sphygmomanometer, were available 90-100 percent of time and used by a doctor on site. Others, such as blood glucose test set, ophthalmoscope, otoscope, ECG, suture set and set for minor surgery were available 20-60 percent of the time. There was no difference in the regions.

178. Equipment such as gastroscope, protoscope, sigmoidoscope, obstetric ultrasound, defibrillator, coagulometer, X-ray, blood cell counter, which are available in advanced PHC systems (such as UK, Canada, Netherlands, the U.S.), were rarely available in the FGPs surveyed with no regional differences in availability.

179. However, a number of equipment typically used in PHC in Western countries (such as cholesterol meter, audiometer, peak flow meter, eye tonometer, urine catheter) was more readily available in advanced reform region of Issyk-Kul and less so in Bishkek and Osh. This difference was statistically significant (Table 10).

Table 10: Percentage of Practices Using Particular Equipment

	Issyk-Kul (% practices using equipment)	Bishkek (% practices using equipment)	Osh (% practices using equipment)	Asymp. Sig. (p=)
Cholesterol meter	50	31	52	0.03
Audiometer	18	5	6	0.08
Peak flow meter	36	19	8	0.00
Eye tonometer	45	22	23	0.07
Urine catheter	50	23	24	0.04

6.5.3. Application of Medical Techniques

180. Respondents interviewed were asked whether they performed certain medical procedures commonly done by FM specialists in Western European countries and North America.

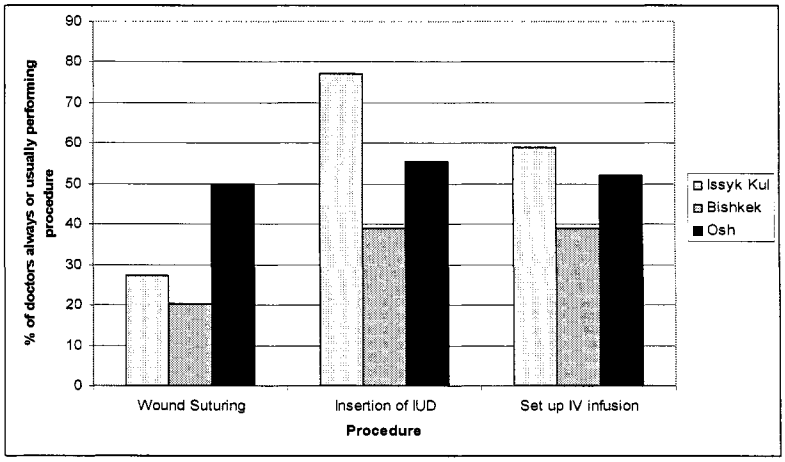
181. The responses show that family physicians and doctors working in PHC from the three study regions did not perform these procedures, which were performed by narrow specialists such as ENT surgeon, general surgeons, orthopedic surgeons, ophthalmologists (Table 11).

Table 11: Procedures Rarely or Seldom Performed by Family Physicians and Primary Care Doctors

Minor surgical procedures	Ophthalmologic and ENT	Orthopedic	Dermatology
Resection of in-growing toenail	Removal rusty spot cornea	Joint injection	Excision of Warts
Removal of Sebaceous Cyst	Maxillary puncture	Applying a plaster cast	Cryotheraphy
	Myringotomy eardrum	Strapping an ankle	

182. Around 25 percent of family physicians and PHC doctors performed fundoscopy at their PHC facilities and there was no statistically significant difference between the regions studied. Three procedures were usually or always performed by family physicians and PHC doctors with those in Issyk-Kul more likely to practice insertion of intra-uterine device (IUD) and setting up an intravenous (IV) infusion. This difference was statistically significant ($p<0.05$). Although wound suturing was performed in Issyk-Kul and Bishkek (20-25% of physicians) those in Osh more frequently performed this procedure (50%) (Figure 26).

Figure 26: Percentage of Doctors 'Always' or 'Usually' Performing a Procedure



6.5.4. First Contact Management of Commonly Encountered Conditions

183. The doctors interviewed were presented with a list of 27 health problems commonly encountered in PHC and for which the family physicians would be expected to act as the first contact point and manage the problem. For 12 of these conditions, the family physicians in Issyk-Kul acted as the first point of contact and managed the problem 80-100 percent of the time, more frequently than Bishkek and Osh regions. These differences were statistically highly significant ($p<0.001$) (Figure 27). A further nine conditions were frequently (50-79% of the time) managed by the PHC doctors in the three regions and especially by the family physicians in Issyk-Kul. The difference between the regions was statistically very significant ($p<0.001$) (Figure 28).

Figure 27: Common Conditions Very Frequently Managed in PHC

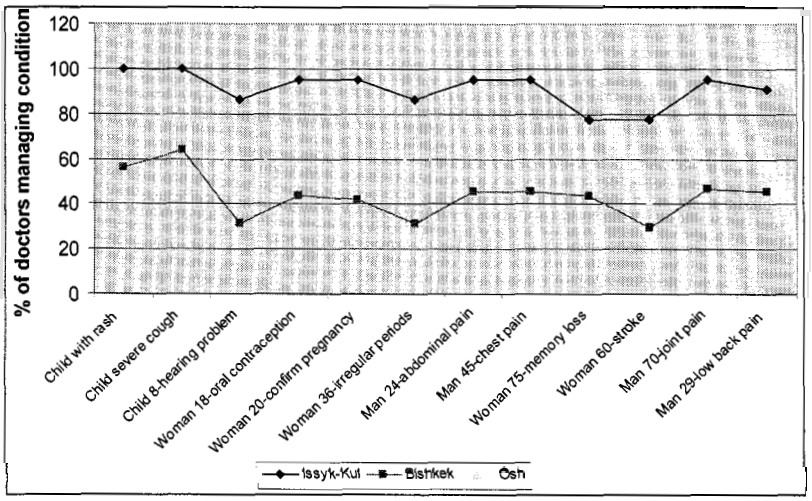
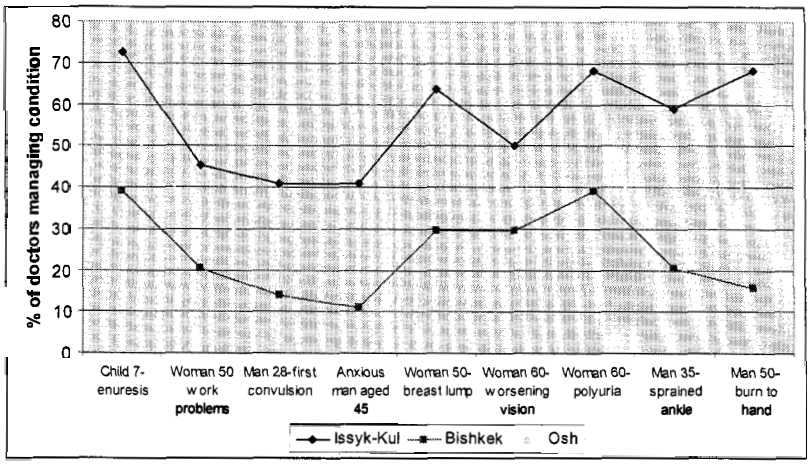
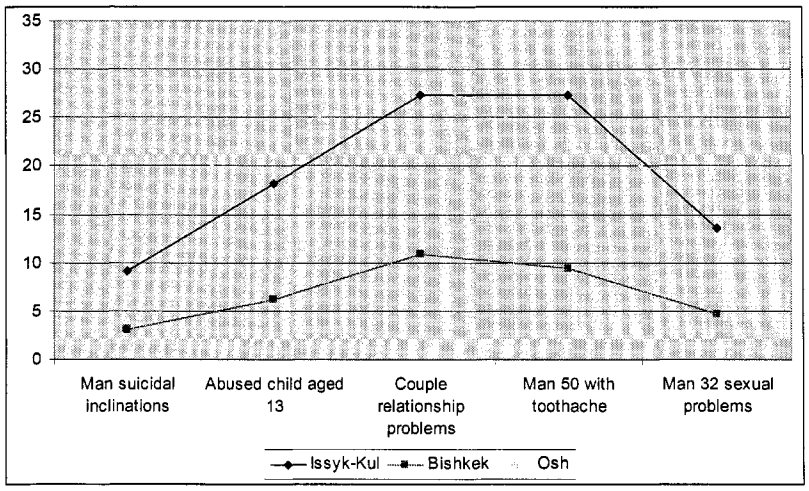


Figure 28: Common Conditions Frequently Managed in Primary Care



184. The remaining five conditions were infrequently managed in the PHC setting in all the regions (10-30% of the time) although these conditions were more likely to be managed by physicians in Issyk-Kul and Osh as compared with Bishkek. Although statistically there was no difference between Issyk-Kul and Osh, the difference with Bishkek was statistically significant ($p<0.01$) (Figure 29).

Figure 29: Common Conditions Infrequently Managed in Primary Care



6.5.5. Health Promotion and Disease Prevention

185. Assessment of the extent and nature of involvement of physicians in health promotion and disease prevention showed differences between regions with doctors in Issyk-Kul more likely to be involved in health promotion and disease prevention activities as compared with those from Bishkek and Osh.

186. Around 96 percent of family physicians in Issyk-Kul routinely checked the blood pressure of their patients as compared with 84 percent in Bishkek and 81 percent in Osh. However, this difference was not statistically significant.

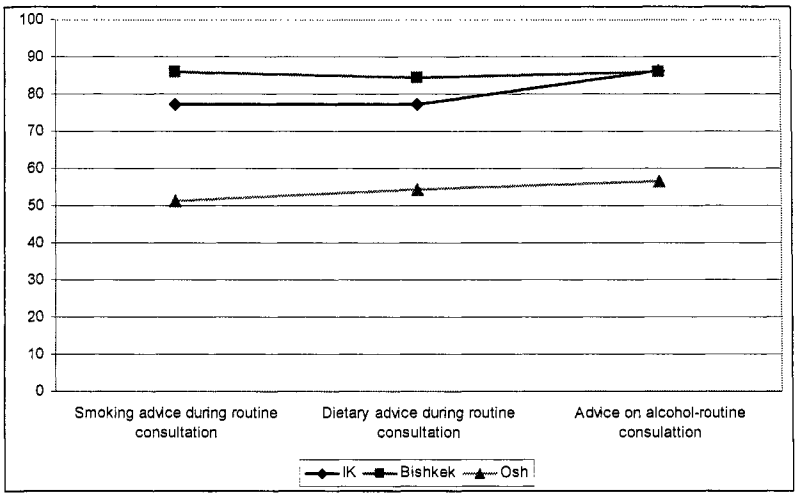
187. Blood cholesterol level is not measured routinely unless indicated by clinical condition or requested. It is more likely to be measured in Bishkek (75%) as compared with Issyk-Kul (55%) and Osh (48%), with a statistically significant difference ($p<0.05$) reflecting greater availability of tests in Bishkek City.

188. Around 70-80 percent of doctors routinely conduct cervical smear tests (Issyk-Kul 68%, Bishkek 69% and Osh 83%). In addition, 64 percent of doctors in Issyk-Kul, 42 percent in Bishkek and 49 percent in Osh perform tests for women invited for smears.

189. Breast cancer screening is performed by 68 percent of doctors in Issyk-Kul, 80 percent in Bishkek and 77 percent in Osh, and the difference is not statistically significant.

190. A large majority of doctors interviewed were involved regularly in health education activities during routine consultations relating to smoking, drinking alcohol, and healthy diet. Family physicians from Issyk-Kul and Bishkek (80-85%) were more likely to be involved in opportunistic health promotion activities as compared with PHC doctors from Osh (50-55%), and these differences were statistically significant ($p<0.001$) (Figure 30).

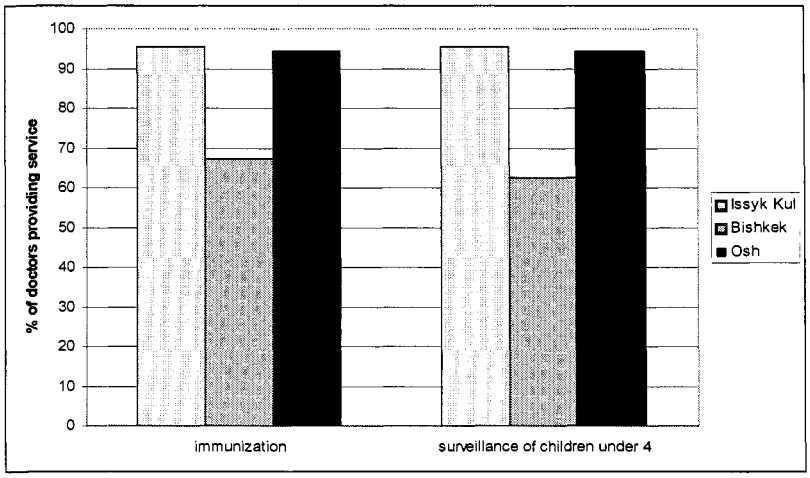
Figure 30: Percentage of Doctors Providing Health Education Advice on Smoking, Diet and Alcohol During Routine Consultation



191. Around 70-80 percent of the doctors in the three regions were also involved in providing advice in special health education sessions. There was no statistically significant difference in the proportion of doctors participating in these activities.

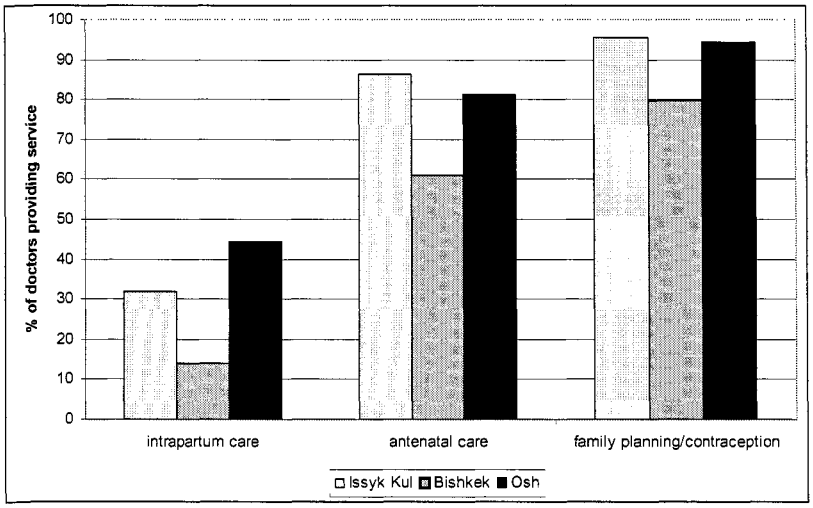
192. Regarding health education and prevention activities for children, there was a statistically significant difference ($p<0.01$) in the proportion of doctors providing immunization and developmental surveillance activities with over 90 percent of the doctors participating in Issyk-Kul and Osh and only 50-60 percent in Bishkek – presumably reflecting the reluctance of the retrained therapeutists and gynecologists to look after children, especially when sub-specialists are readily available (Figure 31).

Figure 31: Percentage of Doctors Providing Immunization and Pediatric Surveillance



193. The proportion of doctors providing family planning, antenatal and intra-partum care varied. Family physicians from Issyk-Kul were more likely to provide these services than physicians from Bishkek and Osh. The difference between Issyk-Kul and Bishkek was statistically significant ($p<0.01$). Only a small proportion of doctors (30-45%) provided intra-partum care (Figure 32).

Figure 32: Percentage of Doctors Providing Family Planning Services, Antenatal and Intra-partum Care



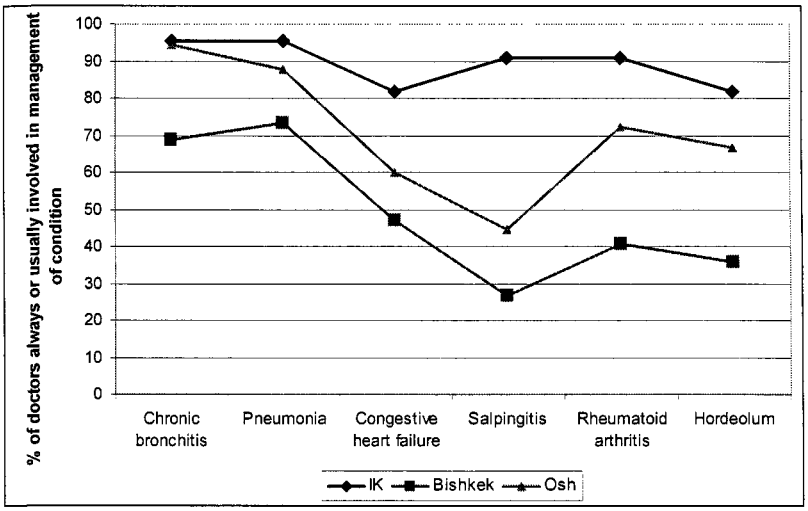
6.5.6. Chronic Disease Management

194. This element of the task profile survey aimed to identify the extent to which family physicians and primary care doctors were involved in management of common chronic conditions that would be expected to be managed within PHC setting. The doctors were presented with a list of 17 conditions and asked to identify the extent to which they were involved it the management of these – 'almost always', 'usually', 'occasionally' and 'seldom/never'.

195. Family physicians from Issyk-Kul were more often involved in managing all of these conditions as compared with doctors from Bishkek and Osh. The differences in involvement were statistically significant ($p<0.01$). Interestingly, doctors from Osh were more involved in managing many of these conditions as compared with doctors from Bishkek.

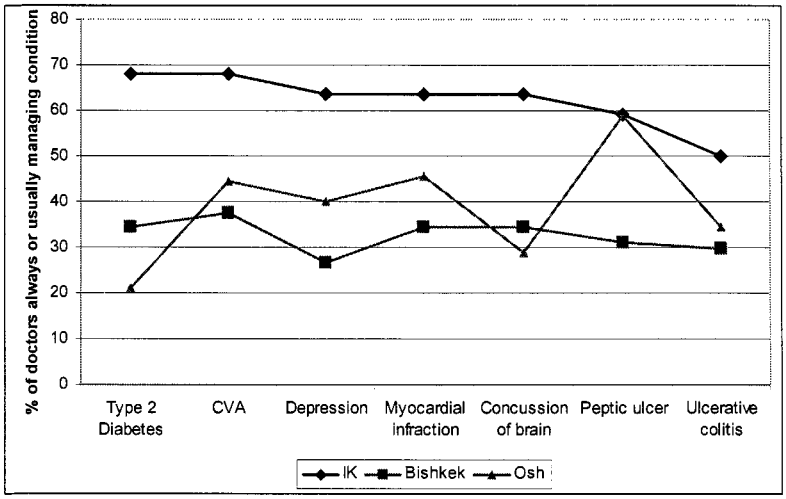
196. Around 80-95 percent of family physicians from Issyk-Kul were 'always or usually' involved in the management of six common chronic conditions (Figure 33).

Figure 33: Percentage of Family Physicians 'Always or Usually Involved' in Managing Six Common Chronic Conditions



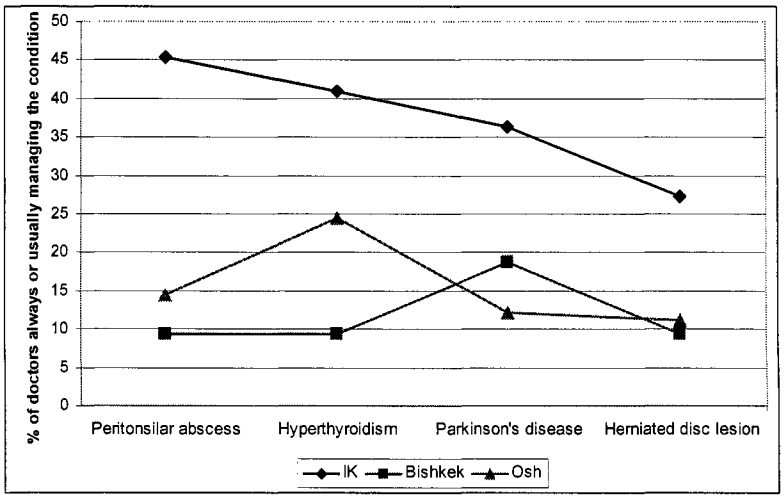
197. Around 50-70 percent of family physicians from Issyk-Kul were 'always or closely' involved in management of a further seven common chronic conditions, as compared with 20-40 percent of PHC doctors from Bishkek and Osh. The differences were statistically significant ($p<0.01$) (Figure 34).

Figure 34: Percentage of Doctors 'Always or Closely' Involved in Managing Seven Chronic Conditions



198. Around 27-45 percent of the family physicians in Issyk-Kul were involved in managing a further four chronic conditions as compared with a much lower proportion in Bishkek and Osh. The differences were statistically significant ($p<0.01$) (Figure 35).

Figure 35: Percentage of Doctors Involved in Delivering Services for Chronic Conditions that are 'Infrequently' Managed



6.5.7. Job Satisfaction

199. A large majority of the doctors interviewed strongly or more-or-less agreed that they were interested in their work and also found real enjoyment. This proportion was similar for family physicians in Issyk-Kul and doctors from Bishkek and Osh, and differences were not statistically significant (Figure 36).

200. Only 30-50 percent of the doctors surveyed thought the degree of effort and the reward corresponded (Issyk-Kul 50%, Bishkek 30%, Osh 40%). A similar proportion thought that much of their effort was wasted. A large majority of the doctors strongly or more-or-less agreed with the fact that their work is overloaded with unnecessary administrative duties. This proportion was higher for doctors from Issyk-Kul (77%) as compared with Bishkek (75%) and Osh (57%). The difference between Issyk-Kul and Osh was statistically significant. However, it is of real concern that most of the doctors, if they had the opportunity, would leave their posts and pursue non-medical work (Issyk-Kul 86%, Bishkek and Osh 73%) (Figure 37).

Figure 36: Percentage of Doctors Who Enjoy Their Work

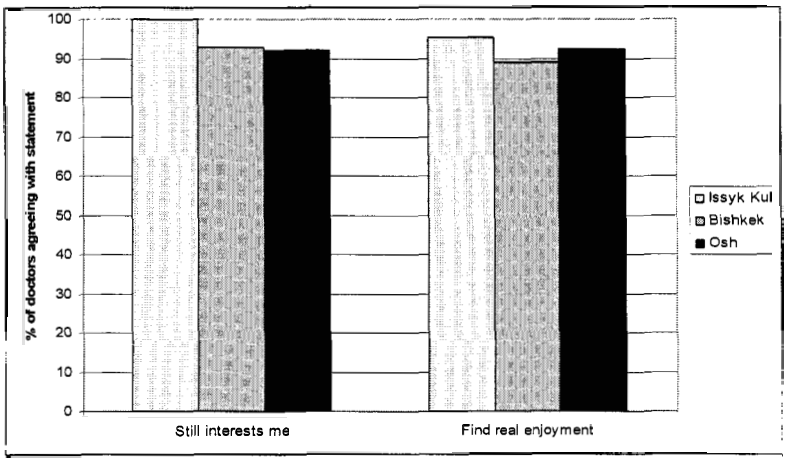
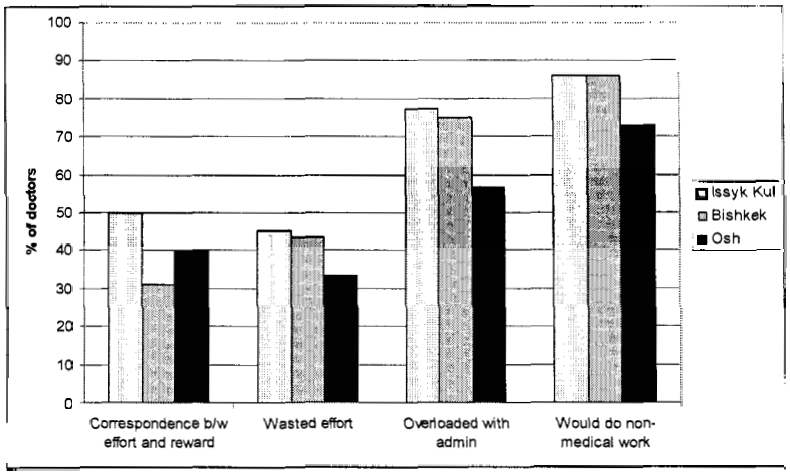


Figure 37: Views of Doctors (by %) on Their Work



201. Note: The choice of Bishkek as an intermediate reform area may confound the findings' greater substitutability of PHC with specialist care in Bishkek City. This we could not control. Without a baseline, it is difficult to separate whether findings on Bishkek are due to the reforms or to easy access to specialists, which creates an entirely different health care seeking pattern.

7. ANALYSIS OF THE HEALTH INSURANCE FUND DATA ON HOSPITAL REFERRALS AND ADMISSIONS FOR KEY CONDITIONS

7.1. IMPACT OF EXPANDED SERVICE DELIVERY ON PHC FUNCTION

202. The available Health Insurance Fund data on referrals and admissions were analyzed, for the period 2001 to 2003, to explore whether FM-centered PHC has attained or improved key functions, such as first contact management of patients, gate keeping, comprehensiveness and continuity.

203. The analysis focused on the aggregate number of referrals by FMPs to hospital outpatients (as a proportion of total) and 'avoidable hospitalizations' for common acute clinical conditions that should be managed in PHC setting by family physicians – for instance, admissions for acute ear, nose and throat (ENT) problems, urinary tract infections (UTI), and lower respiratory tract infections in children (LRTI).

204. The results clearly point to enhanced gate keeping and first contact functions of PHC as a result of FM and a substantial secondary-to-primary shift.

7.2. ENHANCED GATE KEEPING AND FIRST CONTACT FUNCTIONS

205. In the period 2001 to 2003, the number of referrals per person registered with FGPs and the FGP initiated admissions declined as a proportion of total hospital admissions, indicating enhanced gate keeping function (Figure 38 and Figure 39).

Figure 38: Number of Hospital Referrals per Person Registered with FGP

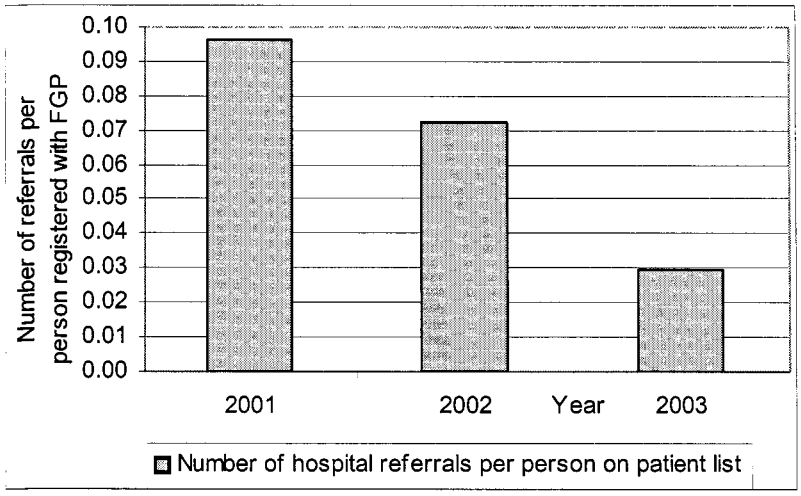
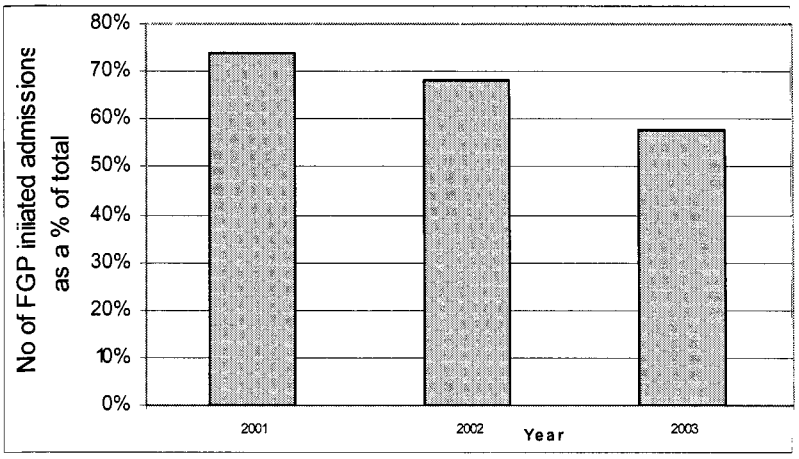
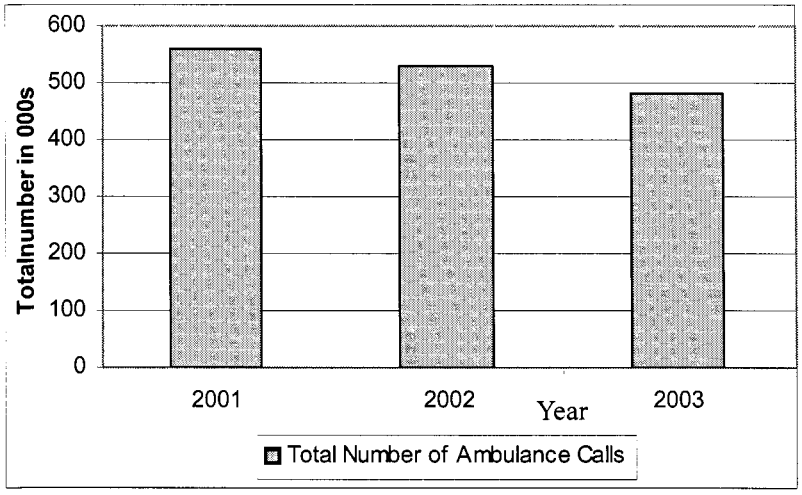


Figure 39: FGP Initiated Admissions as a Proportion of Total Hospital Admissions (2001-2003)



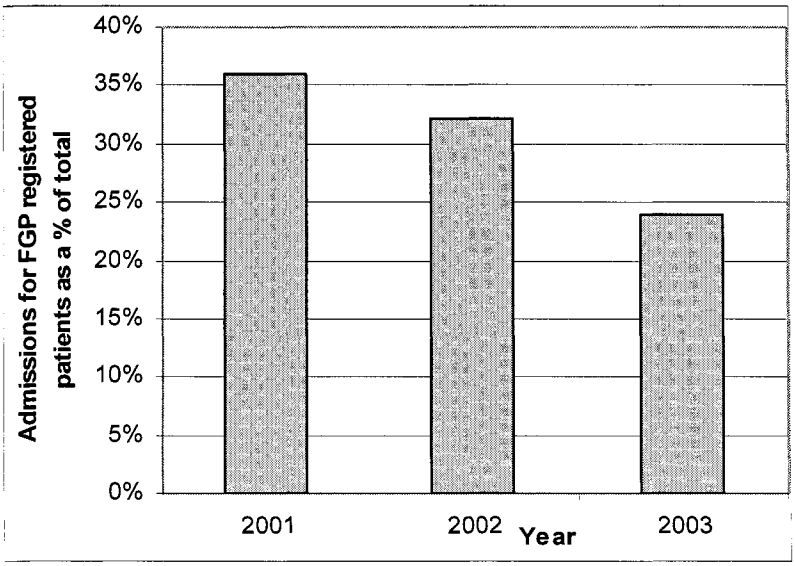
206. The number of ambulance calls also fell, presumably due to increased substitution of FM-led PHC for ambulance treatment (Figure 40).

Figure 40: Total Number of Ambulance Calls



207. In the same period, the number of hospitalizations for patients registered with FGPs as compared with the total fell, indicating enhanced capacity of FGPs to resolve problems at the PHC level (Figure 41).

Figure 41: Hospitalization of Patients Registered with FGPs as a Percentage of Total Admissions



208. Significantly, analysis of data demonstrates that FGPs are more effectively managing key common acute conditions in PHC setting. In the three-year period of analysis, the total number of referrals and the referral rate for LRTI and ENT declined by almost 50 percent (Figure 42 and Figure 43).

Figure 42: Hospital Referrals for Acute ENT Problems (total and per 1,000 persons registered)

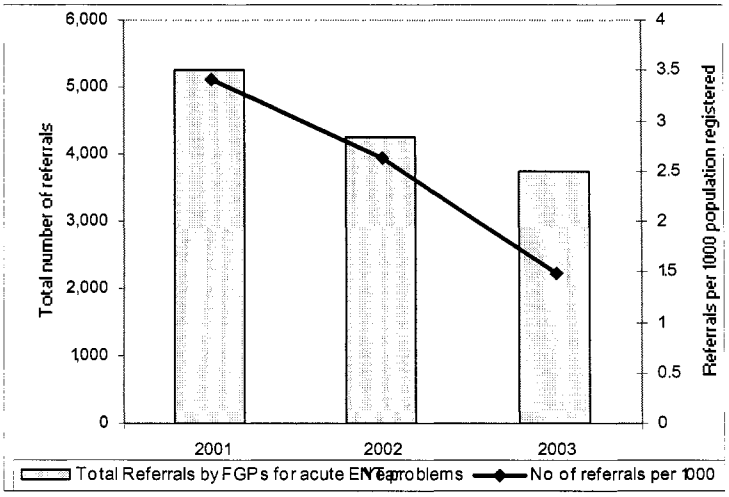
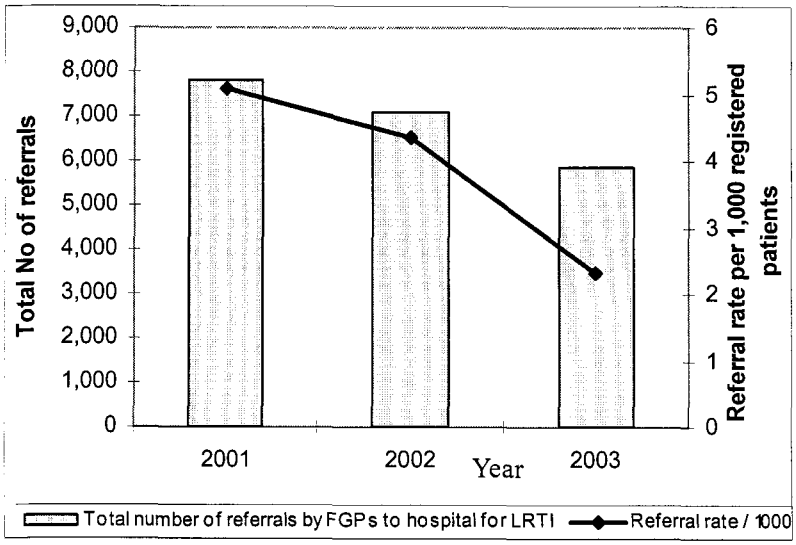


Figure 43: Hospital Referrals by FGPs for Acute LRTI Problems (total and per 1,000 persons registered)



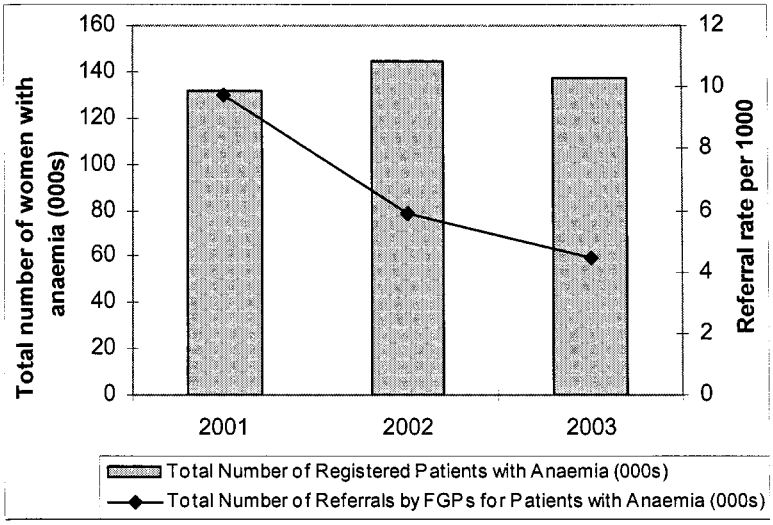
7.3. ENHANCED MANAGEMENT OF COMMON CHRONIC CONDITIONS

209. In line with expanded provision of services to manage acute conditions, family physicians have also successfully expanded the scope and scale of services for managing common chronic illnesses. For most of these chronic illnesses, evidence-based guidelines have been introduced to increase management within the PHC setting and reduce referrals to hospitals.

210. The impact of this expansion of services is clearly reflected in management of hypertension, non-insulin dependent diabetes mellitus, asthma, peptic ulcer disease, anemia and heart disease.

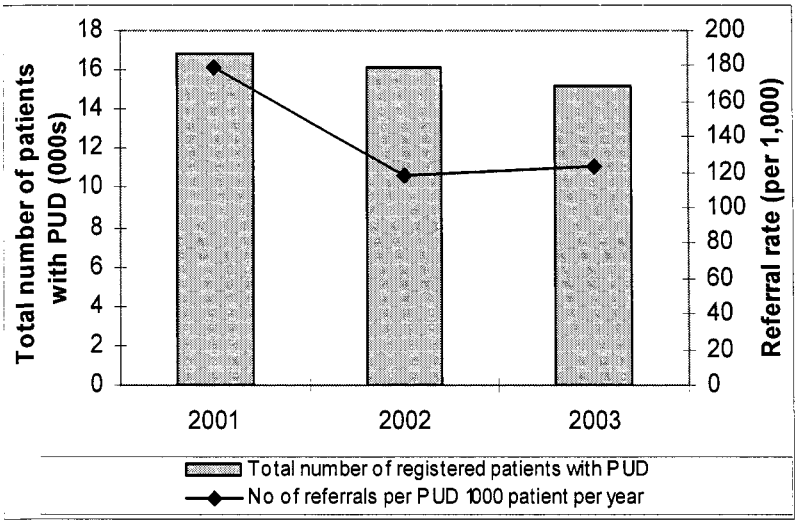
211. For instance, for anemia, which is prevalent in pregnant women and which contributes to maternal mortality, despite an increase in the number of persons with anemia registered with FGPs, the number of referrals has more than halved (Figure 44).

Figure 44: Number of Referrals per Person with Anemia



212. Similarly, the number of hospital referrals for peptic ulcer disease, where previously patients were managed by surgery, declined by more than 30 percent (Figure 45).

Figure 45: Number of FGP Hospital Referrals for Peptic Ulcer Disease



213. The number of FGP referrals for asthma has declined by more than 30 percent (Figure 46), while the number of hospital admissions per 1,000 asthma patients declined by almost 50 percent (Figure 47).

Figure 46: Number of FGP Hospital Referrals for Asthma

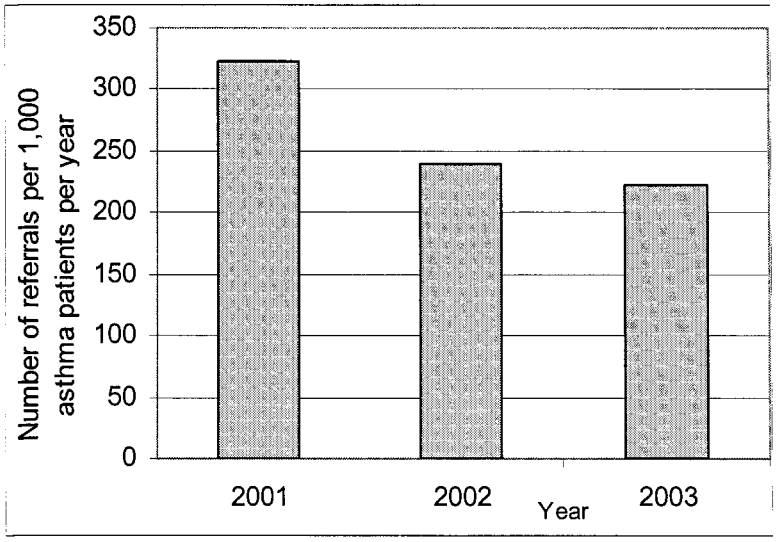
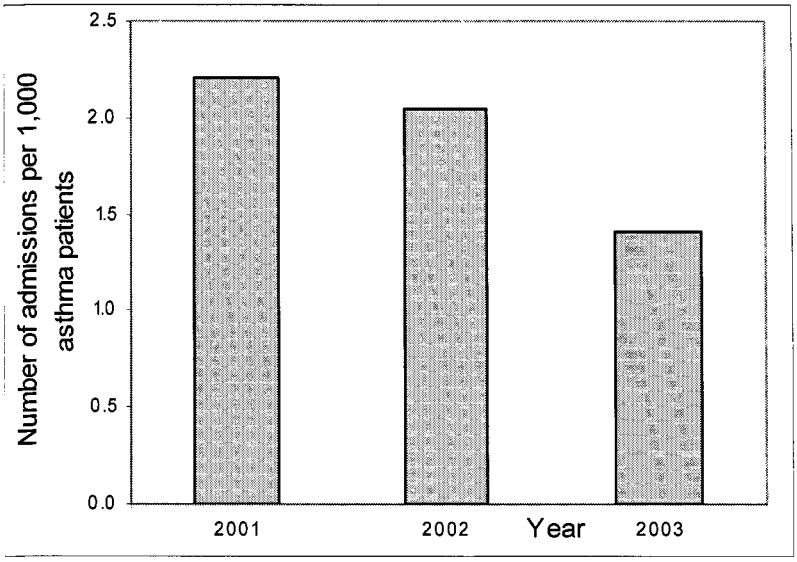
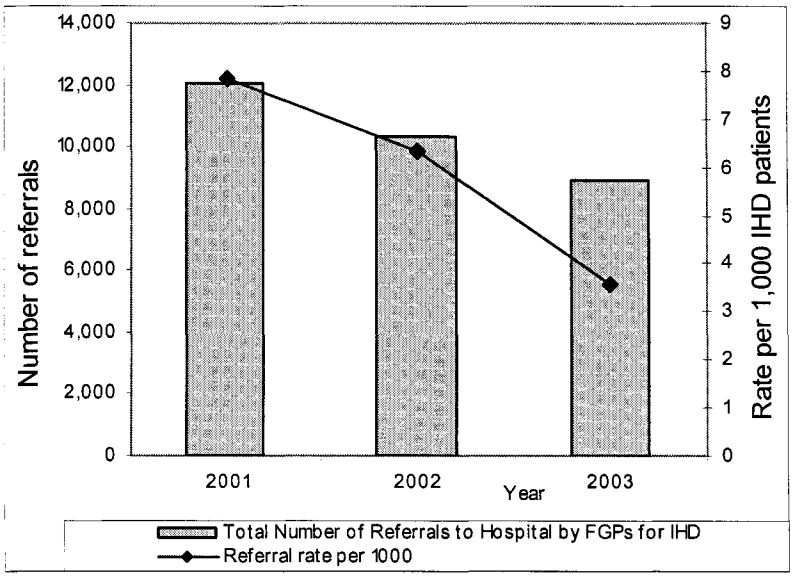


Figure 47: Number of Hospital Admissions per 1,000 Asthma Patients



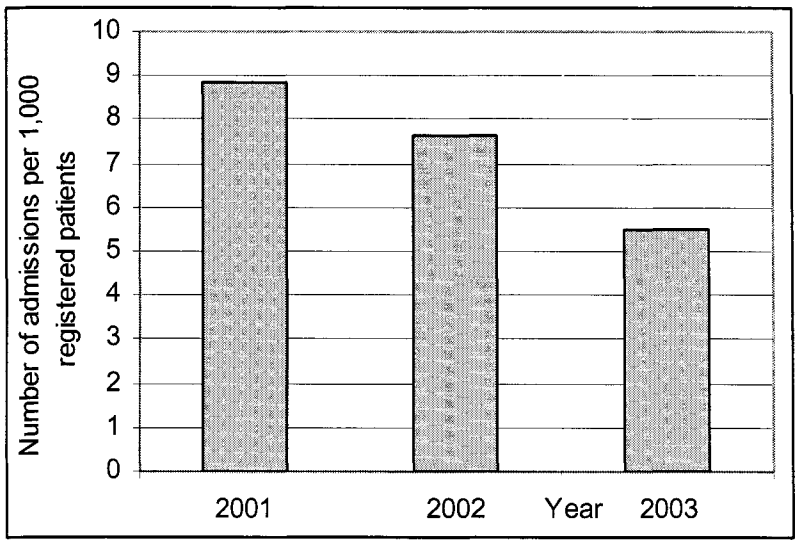
214. A substantial decline is seen in the number of referrals by FGPs for ischemic heart disease, which diminished by more than 50 percent (Figure 48).

Figure 48: Number of Referrals by FGPs for Ischemic Heart Disease



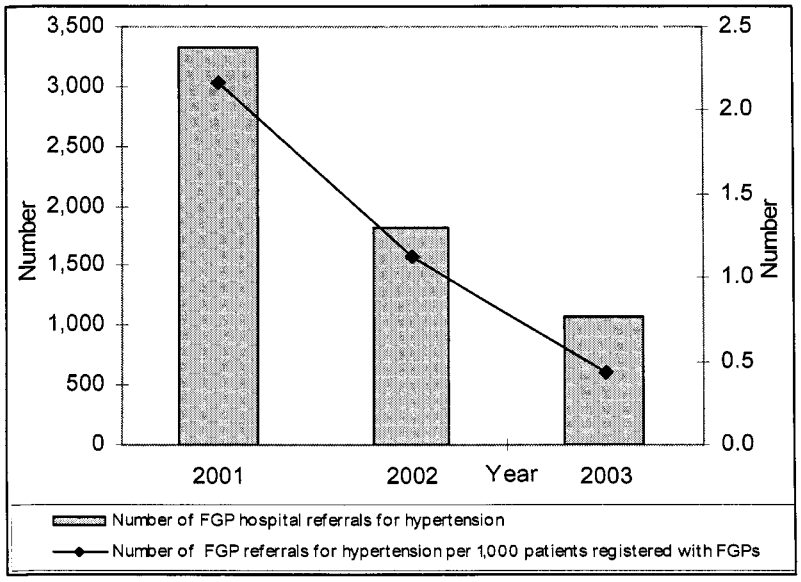
215. In the same period, the number of hospital admissions for IHD declined by around 40 percent (Figure 49).

Figure 49: Number of Hospital Admissions for IHD per 1,000 Registered Patients



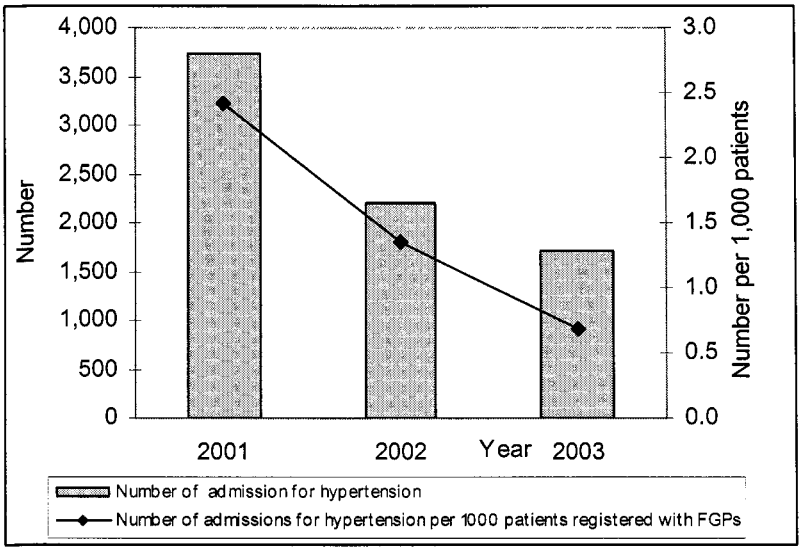
216. As with management of ischemic heart disease, FGPs have also enhanced the management of hypertension, where the number of hospital referrals per 1,000 registered patients has substantially declined, by almost six-fold (Figure 50).

Figure 50: Number of FGP Referrals for Hypertension



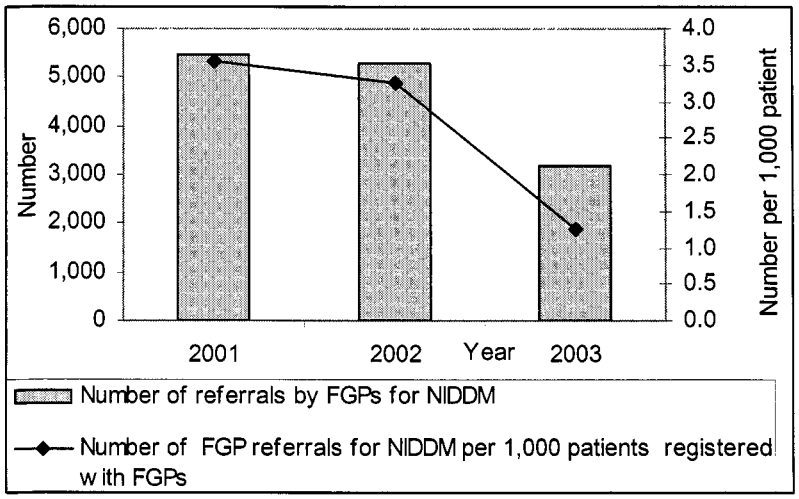
217. The number of hospital admissions for hypertension per 1,000 patients registered with FGPs declined almost five-fold (Figure 51).

Figure 51: Number of Hospital Admissions for Hypertension



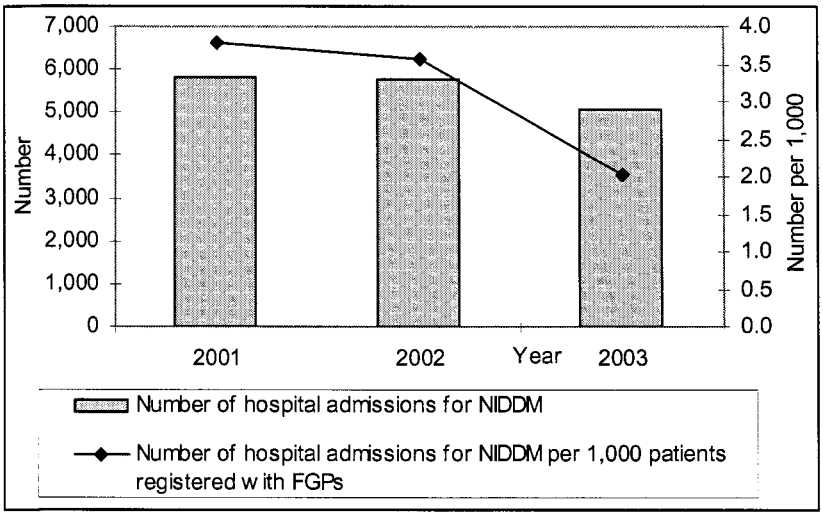
218. The management of non-insulin dependent diabetes mellitus patients has also shifted to FGPs. In line with other common chronic conditions, the number of referrals declined three-fold (Figure 52).

Figure 52: Number of FGP Referrals for NIDDM



219. The number of admissions for NIDDM per 1,000 patients registered with FGPs declined almost three-fold (Figure 53).

Figure 53: Number of Referrals for NIDDM



220. The results of the analysis clearly show enhanced first contact, gate keeping and comprehensiveness functions of PHC in FGPs, as compared with the PHC level staffed by non-specialist PHC doctors. There is a clear secondary-to-primary shift with a substantial decline in the number of referrals and hospital admissions for the key common acute and chronic conditions that should be managed in PHC setting.

221. The results confirm the positive benefit of FM-centered PHC, which has clearly expanded the scope and content of services within the PHC level. This in turn has led to diminished hospital referrals and admissions – thereby increasing the efficiency and effectiveness of the health system.

8. FINDINGS OF THE QUALITATIVE RESEARCH

8.1. PERCEPTION OF REFORMS AS COMPLEX TRANSFORMATIONAL CHANGE

8.1.1. Comprehensive Restructuring of the Health System with New Organizational Forms

222. Most respondents perceived the Kyrgyz health reforms and introduction of FM to be a complex transformational change, which involved comprehensive restructuring of the health care delivery system inherited from the Soviet regime. Respondents cited that reforms replaced the tripartite Soviet PHC model, established new provider organizations, redesigned care delivery process to shift from a secondary- and tertiary-care focused system to one emphasizing PHC, and introduced new payment systems. This complex transformational change required rationalization of hospitals, reorganization of polyclinics, introduction of new financing mechanisms, and generation of a new cadre of human resources for the health system – changes seen to be "very difficult and painful to achieve."

223. "I think these are very deep changes. And, I would say, on all levels." (Clinician Involved in Training, IAMS)

224. "There have been radical changes in health care system as we shift our focus from secondary and tertiary care to PHC." (Policy Maker, Manas Program)

225. The health care reforms established new PHC organizations with greater autonomy in decision making and financial management, and better defined secondary and primary levels.

226. "Today we have three different entities: OJHs, FMCs, FGPs... that are autonomous of each other and have different roles and responsibilities. OJHs are responsible for secondary care and FMCs for PHC." (Manager, OJH)

227. "... At oblast level health services have been restructured, hospitals have been merged, closed or reorganized, and oblast joint hospital, integrated with PHC, established to meet health care needs of the population." (Manager, FMC)

228. "We joined adult and children polyclinics with women consultations, so that people could receive comprehensive health services in one place from a single doctor." (Policy Maker, MOH)

8.1.2. Redesigning the Care Delivery Process

229. Key informants commented that the new system not just restructured but also redesigned care delivery processes – putting family physicians at the center with gate keeping function and a broadened scope of services, including disease prevention and health promotion. New care guidelines helped change the scope, approach and delivery of services.

230. "Now one Family Doctor is responsible for delivery of health care to a whole family... providing many services such as family planning, diagnosing somatic problems, managing gynecological diseases, consulting children and issuing prescriptions..." (Manager, FMC)

8.1.3. New Financing Systems

231. Respondents felt that the reforms entailed complex changes to the financing and resource allocation functions: separating financing and provision, introducing new entities (HIF and TD-HIF), and creating single resource pool and payer at oblast level.

232. "Financing was fragmented... To develop and implement a single payer system, the Kyrgyz Republic introduced a law on a single payer ...to be performed by the HIF... to pool the funds, creating an opportunity to protect the poor, address the needs of the population, and redistribute funds to poorer regions." (Policy Maker, MOH)

8.1.4. Changing Consumer-Provider Relationships

233. Many respondents identified that the concept of users having a choice of doctors did not exist during Soviet times and was a radical shift in consumer-provider relationship.

234. ".... In Soviet system the public was assigned to doctors according to catchment areas and a person could do nothing to change a physician, even if not satisfied with services. The new system provides choice of a Family Doctor." (Policy Maker, SVPA)

235. "... When I heard about free enrollment, I could not imagine how a person could decide where to go to receive health care services." (Manager, FMC)

8.1.5. Emergence of New Stakeholders

236. Those interviewed commented that the reforms introduced new stakeholders to the system – such as the HIF, hospital and FM Associations, international agencies, and international and local NGOs. Direct interest from the President signaled the importance of the reforms.

237. "I must say that the President is supporting health reforms by all means... A couple of years ago parliamentarians organized a movement against health care reforms and the leader of health reforms... But the President called for an urgent meeting and had a two-day discussion with them to explain the need and the strategy of the reforms." (Key Association, HA)

238. "...FGPA has played a huge role in the process, as a major entity, developing and suggesting changes to legislation on provision of health services." (Policy Maker, MOH)

8.2. PHC Reforms and Perceived Benefits for Users

239. Respondents enthusiastically identified many benefits of PHC for the users and the health system, in particular, increased user satisfaction, improved physical and financial access, continuity of care, single person responsible for care, comprehensiveness of care and increased awareness of rights.

8.2.1. Increased User Satisfaction

240. Most of the respondents felt that the new PHC system increased user satisfaction, as the family doctors were able to address most health problems at the PHC level – reducing the need for cross-referrals within the PHC and referrals to secondary care. Further, the new consumer-provider relationship encouraged doctors to deliver higher quality health services to increase user satisfaction.

241. ".... as only one doctor manages the whole family and the patient from birth till old age, the doctor will know more about the individual, his family, his risk factors and illnesses, and can address his

health problems. Is this not it good for a patient? And why should the patient not be satisfied?" (Manager, FMC)

242. "We have results of the WHO study, which shows positive changes in the system. For example, almost 70 percent of respondents are satisfied with health services and think that the introduction of official co-payment has positively impacted on the provision of health services and quality of care." (Key Association, SVPA)

8.2.2. Improved Access to Health Services

243. Increased access to health services was emphasized as a key achievement of FM, positively impacting waiting time and out-of-pocket payments.

244. "I am a financier and know little about medicine, but it seems to me that the family doctor system will significantly ease access to medical aid. Patients will not need to wait in the line for hours and run from one doctor's office to another. They will be able to solve their problems in the office of the family doctors. This is particularly convenient in rural areas. Villagers will no longer need to travel to district centers seeking advice from specialists. Family doctors will be in close contact with the population and carry out preventive work among people." (Manager, OJH)

245. "We developed this [FM] system not only to increase physical access to health services but also financial access. In a situation where the population has low paying capacity, this system has become an important achievement and this is recognized by many people." (Policy Maker, MOH)

8.2.3. Continuity of Care

246. Many informants identified that FM reforms improved continuity of health care:

247. "...Secondly, we solve the problems with continuity of care. In the Soviet system a child was managed by a pediatrician, then by a doctor specializing in adolescents, then assigned to a therapeutist – and females assigned to an Ob/Gyn specialist. We had to expend a lot of effort and resources to maintain continuity of care but we could not achieve it. ...The problem with continuity of care is solved by introducing family doctors..." (Policy Maker, MOH)

8.2.4. Named Physician to Take Care of Health Problems

248. Having a single named doctor for most health care problems was identified as a key benefit to the patient.

249. "Patients now have a single doctor for themselves and their family. In Soviet system patients were transferred from one physician to another throughout their lives. It was not very effective in terms of disease management and doctor-patient relationship. Now the doctor is like part of the family." (Manager, FMC)

8.2.5. Comprehensive Health Services

250. Enhanced comprehensiveness of services in PHC was cited as a key benefit.

251. "Introduction of FM increased comprehensiveness of services provided at the PHC level...we expanded the scope of services and trained doctors to enable them to provide good quality services." (Policy Maker, MOH)

252. "FDs are able to deal with more and more illnesses. In the past these were managed by the narrow specialists." (Key Association, HA)

8.2.6. Increased Awareness of Rights

253. Respondents commented that reforms increased patients' awareness regarding their rights, positively influencing the consumer-provider relationship and enabling patients to demand services to which they are entitled.

254. "I can say that patients have more knowledge now. With the introduction of co-payment, patients know what they paid for. Not like the former times, when they did not know what kind of services would be provided. They even say: 'I paid for this and this, so please be kind to perform the services'." [smiling] (Manager, FMC)

8.3. PHC Reforms and Perceived Benefits for the Health System

8.3.1. Efficient Care Delivery and Use of Resources

255. Efficient utilization of resources was the most frequently cited benefit to the health system, as illustrated by comments from two respondents:

256. "FM focuses on prevention and health promotion. This, I think, contributes to more efficient use of available resources." (Policy Maker, MOH)

257. "During Soviet time therapeutists provided services to adults, pediatricians to children and obstetrician-gynecologists to women. There was no integrated and comprehensive approach to treatment of the population from birth to old age. Now, we have one doctor who can provide comprehensive health services to the whole family ... this allows early diagnosis and reduces duplication of health care services." (Manager, FMC)

258. "Focusing on PHC leads to a decline in hospital admissions, reduces the need for large numbers of hospitals and hospital beds, allows downsizing the secondary care sector and redistribution of finances." (Manager, FMC)

8.3.2. Improved Equity

259. Enhanced equity (of financing and access) was perceived as one of the main benefits of PHC reforms and most highly valued by the respondents.

260. "We introduced FM and expanded it through the country, and also created a payment system based on the capitation principle to increase equity of access to health services of the same quality." (Policy Maker, MOH)

8.3.3. Improved Transparency

261. A benefit of the PHC reforms cited by the respondents was the increased transparency of funds flows:

262. "...Single payer system and per capita allocation help us to know how much money there is in the health sector and allows us to distribute finances according to need." (Policy Maker, MOH)

263. "...Introduction of formal co-payments, it's like a legalization of the bribes. The doctors don't like it, as the cash goes to the official cashier not the doctor's pocket. ...Co-payments make the system more transparent: we know how much money came into the system and the volume and type of services provided for this money." (Manager, FMC)

264. "I now know better the level of funds pooled and allocated to my FMC. This helps me to plan accordingly and make future projections." (Manager, FMC)

8.4. BARRIERS TO CHANGE

265. Resistance to change was intensely discussed during the interviews, which uncovered reasons why the changes were resisted by the political elite, narrow specialists, health care managers, PHC staff and consumers.

8.4.1. Organized and 'Politicized' Resistance

266. The majority of informants identified significant opposition to reforms from senior government figures, parliamentarians and narrow specialists – identified as the most formidable opposition group. Many observed that governments of some Central Asian Republics were strongly opposed to a system based on FM and tried to influence the Kyrgyz Government. Clearly, health reforms have become 'high politics'.

267. "We face a lot of challenges: political ones – with disagreement of parliamentarians regarding the organization of health system. And they, the parliamentarians, form the biggest opposition group..." (Policy Maker, MOH)

268. "...Well it is a very political question. A lot of parliamentarians do not want a health system based on FM... When we started implementing health reforms and strengthening the PHC by introducing FM, we experienced big pressure from policy makers outside the republic... who often criticized our initiatives during regional summits and meetings." (Key Association, SVPA)

269. "...When we joined adult and pediatric clinics with women consultation centers, the MOH came under strong pressure from politicians and narrow specialists in the Kyrgyz Republic and neighboring countries." (Manager, FMC)

8.4.2. Winners and Losers: The Changing Role and Power of Stakeholders

270. The respondents stressed that comprehensive restructuring of the health system redistributed management authority, financial benefits and control of resources. This led to clear winners and losers and resistance from those who stood to lose out.

271. "Before [the reforms] the chief doctor of Central Region Hospital, responsible for inpatient and outpatient care, was powerful. But now, the chief doctor is only head of hospital care. As we now have FMCs, we can observe a power struggle at regional and oblast levels." (Policy Maker, Manas Program)

272. "It's impossible to say that everybody thinks positively [about health reforms]. Many specialists have lost income – introducing formal co-payments made payments transparent." (Manager, FMC)

273. "Narrow specialists didn't want FDs because they thought the FDs would take all of their clients, leaving them [narrow specialist] with no patients, and that all the funds would be distributed to FDs... Polyclinics rejected FGPs and FDs, arguing they could do the job themselves." (Manager, FMC)

8.4.3. Fear of the Unknown

274. Respondents were highly concerned that introduction of reforms was hindered by a lack of understanding of FM and that the medical community was 'lost at the crossroads' in the very beginning of PHC reforms.

275. "People were confused. It was like 'buying a pig in a poke'. They didn't know what to expect ... and what the reforms would bring." (Key Association, HA)

276. "People were afraid of health reforms. They didn't know what outcomes to expect." (Manager, OJH)

8.4.4. Nostalgia for the Old Times

277. Nostalgia for the old times, with 'free' care, was a theme that repeatedly emerged in interviews of medical personnel, management and the public.

278. "In the past our salary was enough for everything, and now it is not. Previously, the medicines were free and now we must pay for everything. Now, only people with money can afford medical treatment. For ordinary people medical treatment is inaccessible." (Manager, FMC)

279. "During the Soviet times we had drugs and equipment to perform adequate service but now it is difficult to practice and provide good quality services. Hopefully everything will change with time." (Manager, FMC)

8.4.5. Poor Teamwork

280. Although PHC personnel have been retrained as FDs and family nurses, most respondents felt that teamwork at PHC level was poor.

281. "We anticipated that doctors and nurses [after training] would share knowledge in their practices. But in reality they are not. I personally think that this is a key factor that hinders implementation of FM." (Key Association, SVPA)

282. "...Poor teamwork is another barrier. Teamwork of FGPs personnel I mean. They have been trained in FM but do not share knowledge and experience." (International Agency, WHO)

8.4.6. Financial Barriers

283. Financial barriers were identified by all informants as critical; informants felt that poor financial support for the reforms slowed the pace of change.

284. "Barriers exist due to inadequate financing of the reforms; I think it's the biggest one. We (PHC) don't get our money in full because of the Social Fund and HIF." (Manager, PHC)

285. "I think without solving issues related to financing of the system, we will not be able to [fully] introduce FM." (Policy Maker, MOH)

8.4.7. Legal and Administrative Barriers

286. Interviews uncovered significant legal and administrative barriers which, according to respondents, provided strong grounds for resistance and hindered implementation of health reforms.

287. "...The system of reporting has not changed, so an FD should report only for adult patients (if he was specialized in adults in the past). We've retrained specialists but have not changed regulatory documents." (Manager, FMC)

288. "I went to Issyk-Kul, visited FGPs and met FDs who can provide services to different population groups: they said they could not practice because the law prevents them from discharging new duties." (Policy Maker, MOH)

289. "Although we have FDs, we still have old reporting systems: pediatricians report for children, therapeutists for adults, and obstetrician-gynecologists for women...The management in the health system did not want to accept the new system... or allow FDs to practice as FDs." (Key Association, SVPA)

8.4.8. Poor Communication

290. Poor communication was frequently emphasized as the main reason for negative perception of health reforms. Most people failed to understand the nature and goals. This led to misunderstandings and reduced 'buy-in'.

291. "Effective communication of health reforms to stakeholders is crucial. Lack of communication is a key reason why health reforms have been received negatively. We have implemented marketing campaigns to promote health reforms. But the government should have taken the lead in this." (International Agency)

292. "...This is the mentality of our medical personnel. Probably we should have explained the principles of FM...a PHC system built on FM... and the place [new] PHC would have in the system. If we did this we would not have met with such resistance..." (Policy Maker, MOH)

293. "...hmm... Probably misunderstanding: misunderstanding by managers. First of all they should be educated about why, what for and how health care reforms will be implemented." (Manager, FMC)

294. Although the reforms extended new rights to users, poor communication and a lack of understanding of reforms created negative attitudes to changes.

295. "Introduction of FDs was met negatively by the public ... due to misunderstanding of the concept. We perhaps should have started communication during pilots in Issyk-Kul and disseminated good messages to prevent spread of negative attitudes." (Policy Maker, MOH)

296. "At the very beginning of the implementation of co-payments the public reacted negatively, as they thought this was an additional burden on their health spending...now they understand and even support it." (Manager, OJH)

8.4.9. Lack of Incentives

297. A key finding is that lack of incentives has retarded the pace of reforms, as FGP are not motivated to adopt changes or improve quality.

298. "All in all, lack of incentives, insufficient financing, and distrust of FM hinders functioning of the new system. Moreover, doctors are not confident that the government policies and reforms will be sustained. Some think...everything will revert back to the old regime." (International Counterpart)

299. "...PHC is not attractive to doctors. This is the biggest threat to reforms. The salary of PHC doctors is lower than that of specialists...FDs have to live in remote areas...This [situation] is dangerous: if you do not have interested doctors, the reforms will collapse." (Manager, FMC)

8.4.10. Fear of Crossing Boundaries

300. The respondents identified that the fear of FDs to practice outside their former specialties, attributed to inadequate training, retarded the pace of reforms.

301. "The psychology of doctors is conservative... it was very difficult for doctors to see different population groups, even though we trained them...This process was really complex." (Policy Maker, MOH)

302. "...You need to change the whole medical education system for doctors and nurses. Soviet system trained very specialized people...a doctor with little bit of training will not change. This is why in the transition period they kept specialists in FMCs to cover main specialties." (International Counterpart)

8.4.11. Low Brand Equity for FM

303. Most informants agreed that being a narrow specialist in urban centers was more prestigious than working as a family physician in rural areas. FM lacked role models and was not adequately recognized as a specialty by the MOH or narrow specialists, who argued that FDs could not provide comprehensive services of high quality and should be trained for longer.

304. "Despite an excess, many medical students and unemployed doctors don't want to work in PHC as they think FM is not good for the Kyrgyz Republic: because they have not experienced advantages of FM. There is no career guidance; FM is in an embryonic stage. It's more prestigious to work in inpatient clinics and hospitals." (Clinician Involved in Training, IAMS)

305. "Over 80 percent of students would like to be a narrow specialist and stay in Bishkek. In public opinion, FM specialization is not prestigious." (FMC Manager)

306. "...FDs are not really recognized by the MOH and narrow specialists. Most people in remote areas, at least in Naryn, do not trust in their ability to practice outside their specialty. And I think many doctors are right in saying that three-month retraining is not enough." (International Counterpart)

8.5. Critical Factors for Successful Reform

307. The key informants identified critical factors for successful implementation of a complex transformational change in the health system. Informants enthusiastically reflected on their experience and lessons learned and freely discussed these during the interviews.

8.5.1. FM as the Key Driver of Change

308. Introducing FM – which required organizational restructuring, separation of financing and provision, new financing and payment systems and changes to the care delivery process – was identified as a major driver.

309. "... introduction of FM required comprehensive restructuring of the system, and we painfully merged adult and children polyclinics and women consultations to establish new unified centers... [FM] reforms changed disease management and the care delivery process." (Policy Maker, MOH)

8.5.2. Single Payer System

310. Separation of purchasing from provision and creation of a single payer helped to overcome fragmentation of the system and enhanced equity.

311. "Soviet system was fragmented not only in terms of health service delivery but also financing, with five separate levels (village, rayon, city, oblast and republic)... Single payer system pooled these." (HIF manager)

8.5.3. User Involvement

312. User involvement was identified as being critical to overcoming barriers to change, diminishing resistance and enabling diffusion of experience.

313. "...we need to work with the population... [who were] used to receiving services from ENT specialists or cardiologists, and do not want to see even retrained FDs." (International Agency)

314. "We should have involved the users during pilot phase in Issyk-Kul to disseminate good messages." (Policy Maker, MOH)

8.5.4. Effective and Sustained Communication

315. The need for effective and sustained communication with clear, consistent and focused messages was highlighted as being critical.

316. "...any change process should start with education of participants on why, what for, and how the change will occur." (Policy Maker, MOH)

8.5.5. Sustained and Coordinated International and National Support

317. There was unanimous acknowledgement of the value added by the World Bank, WHO, USAID, ADB, SDC, and consensus that sustainability of health reforms depended critically on continued and consistent support.

318. "What we have achieved would not have been possible without the [continued] support of our president, the minister of health and international organizations..." (Manager, FMC)

319. "International technical and financial assistance was of great help and timely...otherwise the reforms would have been quite impossible. They helped us bring in international experience and implement reforms." (Policy Maker, MOH)

320. "We have been able to effectively manage international organizations. We conduct regular update meetings to get feedback on programs implemented by them. We also coordinate their activities to ensure consistency and sustainability." (Policy Maker, MOH)

8.5.6. A Visible and Articulated Strategy – Manas

321. A unique feature of the Kyrgyz health care reforms is the comprehensive nature of reforms, articulated in the Manas National Health Reform Strategy.

322. "We needed a clear and detailed strategy for health reforms to ensure comprehensiveness and consistency. We adopted the Manas National Health Reform Program. It presents government strategy: short-term, medium-term and long-term plans of health care reforms." (Policy Maker, MOH)

323. "As far as I know, they [neighboring countries] don't have such a program. Their Ministers change very often. Thank God we have a State Policy, the Manas Program, which outlines the strategy of health care reforms and implementation plan." (Clinician Involved in Training, IAMS)

8.5.7. Incentives

324. Incentives matter, and lack of incentives was identified as a major obstacle to sustaining and further developing the reforms.

325. "...lack of incentives, insufficient financing and distrust to FM hinders functioning of the new system." (International Agency)

8.5.8. Creating an Enabling Environment

326. Sustainable change needs an enabling legal environment. Despite new laws, many legal barriers prevent the diffusion of FM.

327. "....We've retrained specialists but have not changed the regulations to allow these retrained doctors to work as FDs." (Manager, FMC)

328. "The Kyrgyz Republic has done a lot and achieved much success. But it should identify solutions to the problem of sustainability. This is what concerns us very much. We have been pushing this agenda and helping the government to find out best ways to address this issue. Health reforms need legal support, high quality FDs, managers and definitely a strong leader." (International Agency)

8.5.9. Critical Mass of Policy Makers and Managers

329. The Kyrgyz experience demonstrates the importance of developing a critical mass of policy makers and managers to develop and implement policies.

330. "Former minister of health is a person who drove the reforms [with his team]. It was he who convinced the government to the urgent need for health care reforms and was instrumental in developing and implementing the Manas program." (Key Association, SVPA)

9. KEY ACHIEVEMENTS OF PHC REFORMS

331. Despite a resource-constrained environment, achievements of PHC reforms in the Kyrgyz Republic are remarkable. There is strong high-level support for FM reforms – an encouraging signal for sustainability of the changes.

332. The results clearly point to expanded scope of services in the PHC level in areas where trained family physicians predominate. There is strong evidence that FM enhanced gate keeping and first contact functions of PHC. There is a substantial secondary-to-primary shift. User satisfaction, although not formally assessed in this study, has increased.

9.1. ORGANIZATIONAL AND REGULATORY CHANGES

333. Several laws have been enacted and regulations passed to create an enabling environment for FM and PHC reforms. FM is recognized in Law.

334. The tripartite pediatric, women's and adult clinic system has been consolidated into unified PHC centers that provide services for all citizens. New PHC provider organizations have been established: FGPs, with autonomy to manage budgets and contract with the MHIF, and FMCs, comprising FGPs and narrow specialists.

335. The scope and content of FGP services have been articulated in law and defined in detail in the State Guaranteed Benefits Package.

336. The gate keeping function of PHC has been established, with FGPs acting as the first point of contact for patients.

337. A large number of PHC centers have been refurbished. Users have been given the freedom to choose or change their family physicians.

338. An accreditation system has been developed, and a number of PHC and hospital facilities have been accredited.

9.2. FINANCING, RESOURCE ALLOCATION AND PROVIDER PAYMENT SYSTEMS

339. Mandatory Health Insurance has been introduced, with formal co-payments, providing additional resources to the health system and also creating a transparent environment with regard to payments to health service providers. There is empirical evidence demonstrating the benefits of the new system to the poor.

340. A key achievement of the Kyrgyz reforms is the introduction of the Single Payer System, which has pooled all sub-national budget funds for health care (from oblast, rayon, and city tax revenues from local finance departments) in the TD-MHIF as a "single-pipe funding for public health, curative services and pharmaceuticals"[48] to fund the State Guaranteed Benefits Package.

341. New provider payment methods have been successfully introduced in the pilot regions for FGPs, based on simple per capita mechanism. Direct and indirect contracts have been introduced for FGPs, including partial fundholding for pharmaceuticals.

9.3. SERVICE PROVISION

342. There is excellent coverage for immunizations and widespread provision of essential PHC services in all regions.

343. In the regions that have introduced the FGP model, the scope and content of services have significantly expanded. The task profile survey shows statistically significant differences in the application of medical techniques, use of equipment, and management of first contact illnesses, as well as management of chronic conditions by FGPs in advanced reform regions as compared with intermediate and early reform regions.

344. The facility survey shows the service profiles in advanced, intermediate and early reform regions to be very similar due to ministerial decrees and standard contracts that specify a common set of services for PHC units throughout the country. Centralized normatives and contracts between MHIF and PHC providers, specifying the scope of services, are necessary to ensure equitable provision of services included under the Program of State Guarantees. However, current contracts do not differentiate between PHC providers of varying capacity to allow innovative units to expand their services and provide additional services on a fee-for-service basis. Hence, a standard system alone can place innovative FGPs in a straitjacket, acting as a barrier to innovation and development of a dynamic and diverse PHC system.

345. The results clearly point to expanded scope of services in PHC level in areas where trained family physicians predominate. There is strong evidence of enhanced gate keeping and first contact functions of PHC as a result of FM. There is a substantial secondary-to-primary shift.

346. There is evidence from the qualitative research that the new FM model is welcomed by the users and health professionals, who identify many benefits including user-centeredness of the model, having a named doctor, user choice, more comprehensive services, empowerment of the FM team and an increased emphasis on teamwork.

347. There is strong evidence from the analysis of the MHIF data demonstrating a shift from secondary to primary level with a decline in the number of hospital referrals for key acute and chronic conditions that are typically managed in PHC setting. Unfortunately, baselining for referrals and admissions at the start of reforms was not robust enough to undertake pre- and post-intervention comparisons by oblast or unit level.

348. Evidence-based guidelines have been introduced for 162 common conditions encountered in PHC. This will enhance quality of PHC services delivered, reduce unnecessary interventions and diminish referrals to hospitals.

9.4. RESOURCE GENERATION

349. A critical mass of FM specialists and nurses, 60-70 percent of the requirement for the country as a whole, have participated in short-course retraining programs. Although an FM specialist residency program has been established, the number of residents in this program is small. An able cadre of FM and nurse trainers have been trained in TOT programs, and many of these trainers are now involved in retraining of doctors and nurses.

10. REMAINING CHALLENGES TO BE ADDRESSED

10.1. NEGOTIATING THE GLASS CEILING

350. Family medicine and PHC reforms in the Kyrgyz Republic have been successful and evolved rapidly but have reached a glass ceiling that needs to be negotiated. Further legislative changes are needed to support the next major phase of development.

351. Many of the key stakeholders wish to see acceleration in the pace of reforms, particularly to: (i) Broaden the role of FGPs and the scope of services they deliver; (ii) Build on the payment mechanisms, contracts and the autonomy afforded to the PHC providers to introduce more flexible contracts with incentives to improve performance, quality, and provide additional services – health promotion, prevention and extended PHC; (iii) Increase remuneration for FGPs and FM nurses trained as specialists; (iv) Further refine resource allocation, taking into account need and equity of access, favoring rural and poorer areas with higher health needs; (v) Place more emphasis on evidence-based medicine; (vi) Change reporting mechanisms that reinforce the old tripartite model and hinder unified service provision.

10.2 BALANCING INNOVATION WITH STANDARDIZATION

352. As stated earlier, countrywide standards on scope and quality of services are useful in establishing minimum quality standards and equitable level of services to Kyrgyz citizens. Given the Kyrgyz Republic is a low-income country with 70 percent of the population living in rural areas, this has to be the initial focus and ensuring this system works is important; but contracts with the FGPs should also be used to allow regional variation and encourage different parts of the system to progress at varying paces.

353. Existing legislations should be modified to allow more flexible contracting and afford greater autonomy to PHC providers to encourage emergence of new organizational forms – such as networks of FGPs with greater planning and service delivery capacity, which can develop flexible patterns of service provision to enhance secondary-to-primary shift. Differentiation of payment mechanisms at the primary and hospital level is clearly an area for the next stage of reforms.

10.3 EXPANDING THE PHC FUNCTION

354. The scope of services provided in PHC setting in the Kyrgyz Republic has expanded substantially and is evidenced by the task profile survey and the analysis of the referral and admission patterns. The scope of services, as yet, is not as extensive as those provided in OECD countries. This is not surprising given the early stage of reforms and substantial resource constraints. In fact, given the meager resources, PHC reforms have been remarkably successful so far in achieving an expanded PHC and an evident secondary-to-primary shift.

355. There is, hence, with additional resources and sustained reforms, an opportunity to further extend the scope of services provided in PHC to levels similar to those provided in countries with more advanced PHC systems. The capacity of PHC level should be expanded through extended training of FGP team members, providing better equipment and more flexible contracting that allows service development to increase diagnostic and problem resolution capability, and further extending the evident secondary-to-primary shift.

356. Although the task profile survey shows statistically significant difference in the scope of services provided by FGPs in advanced reform regions as compared with intermediate and early reform regions,

the proportion of FGPs providing special sessions for health education and promotion and services for psychosocial problems is not large. There is, hence, a need to modify current payment mechanisms to create incentives to encourage provision and uptake of these services.

357. Although the tripartite provider system at the PHC level is consolidated to give way to new PHC units that provide unified services for all citizens, many family physicians have not changed their practices and continue to practice their narrow specialty (pediatrics, obstetrics & gynecology, and adult medicine). The reporting systems at the PHC level, which require returns by sub-specialty, reinforce this practice. Further, guidelines that require screening of newborn and older children, pregnant women, workers, and conscripts by narrow specialists are used as an argument to maintain narrow specialists in PHC.

358. The presence of narrow specialists at FMCs, who can be accessed directly by patients, creates a number of challenges, including:

(i) Fragmentation of the first contact function at PC level;

(ii) Creating a potential source of inefficiency – as empirical evidence from international studies suggests that narrow specialists, as compared with family physicians, more intensively investigate patients, and hence incur more expense per consultation, but without any significant difference in quality of care or health outcomes;

(iii) Fracture of the gate keeping function of PHC, encouraging excessive referrals to narrow specialists in PHC setting and cross-referrals between narrow specialists;

(iv) Adversely impacting continuity of care, as the care is fragmented;

(v) Hindering family physicians from practicing an integrated and holistic family medicine – rather than caring for all patients in urban areas, those FPs with therapeutists background see adults, those with pediatrics training see children and those with gynecologist roots see women, hence making a mockery of true FM practice;

(vi) Preventing the development of extended primary care role – preventing FPs from managing more complex cases in PHC setting;

(vii) Duplicating the role of hospital outpatient departments and FMCs;

(viii) Creating an artificial and potentially destructive perception of separate rural and urban models of primary care – the former managed by FGPs and the latter by narrow specialists (a proposition that is strongly supported by those opposing FM in the Kyrgyz Republic, Uzbekistan and Kazakhstan).

359. Given the potential adverse impact on the development of FM and FGP institutions and given the sources of inefficiency, it is critical that the FMCs are all converted to FGP centers. The narrow specialists who work in FMCs should be either gradually transferred to hospitals or retrained as family physicians – training that will enable them to function as generalists while also handling discharge duties, and when needed, as narrow specialists. One way of achieving this is to transform FMCs as FGP-led Primary Care Resource Centers or Primary Care Diagnostic and Treatment Centers that serve FGPs in urban as well as rural areas. There are successful examples of these intermediate structures in Chile and the UK (e.g. Primary Care Resource Centers, Diagnostic and Treatment Centers, Community Hospitals).

360. However, rapid downsizing or transformation of FMCs may not be legally feasible (as regards redundancy laws and transfer of staff from PHC to hospital setting) or politically palatable in the short term given the popularity of narrow specialists with citizens in urban areas and their political power base. The strong power base enjoyed by the narrow specialists is a key barrier to further reforms in PHC. Without adequate incentives to entice narrow specialists to train as family physicians, enabling them to practice as family physicians but with additional performance-related pay for performing additional functions related to their narrow specialty, it is difficult to see how the resistance from this power base can be negotiated.

10.4. EQUITY AND ALLOCATIVE EFFICIENCY

361. Although FM reforms have been introduced to all regions and now cover majority of the insured population, major inequities in access to services and funding exist.

362. Resource allocation by regions is inequitable, with clear differences in the level of resources provided to urban and rural regions. In particular Naryn and Batkent regions are underprovided.[49] Current resource allocation methods do not reflect health needs or poverty levels. The next phase of reforms should place an emphasis on changing resource allocation mechanisms to take into account poverty and health needs and substantially modify the current patterns that favor urban areas and Republican hospitals.

363. These issues are being addressed as part of the World Bank Health Sector Reform Project-2, which is supporting the development and adoption of a new methodology for calculating categorical grants (including poverty, age and gender as adjusters). The legal framework allowing this will be passed in 2005.

364. Further, allocative inefficiencies between levels of care and types of institution persist. In particular, Republican hospitals in Bishkek still consume a significant portion of the health system budget.

10.5. INCENTIVES AND RETENTION

365. Limited incentives and poor salary levels of FM specialists are two major problems that need addressing in the immediate term. The task profile survey has demonstrated that a large majority of the health professionals trained as FM specialists are prepared to leave FM and the health system as a whole if other opportunities arise. It is critical that in the early stages of the reforms, incentives are introduced to retain the 'early adopters' and leaders and give them the opportunity to innovate and lead change. Failure to do so will result in rapid demoralization of FM teams in general and the innovators in particular. This would adversely affect sustainability of the reforms.

366. Although the new payment mechanisms do provide some incentives, there needs to be a much stronger indication that FM is valued on par with hospital specialties. A key problem with the image of FGP is that the family physicians have to work longer hours then specialists and undertake excessive administrative tasks without commensurate pay or professional recognition (by peers and citizens). This dampens the enthusiasm of young graduates to enter residency programs and of narrow specialists to retrain in FM. A visible salary differential between GPs and FM specialists, as well as between the narrow specialists who work in PHC and FM specialists, would send a strong signal that FM is valued. Non-economic incentives, such as clearer development paths, opportunity of attachment to academic units, and CME are mechanisms that should be utilized.

367. The academic units of Family Medicine at Faculties of Medicine must be further strengthened and undergraduate training in FM expanded, to sensitize medical students to the specialty early in their studies and also to ensure that future narrow specialists are acquainted with the scope and activities of FM, thereby creating a better common understanding between narrow specialists and family physicians. This will help enhance vertical and horizontal communication, foster partnership, encourage cooperation and establish linkages – necessary to create a continuum of care.

10.6. Developing Human Resource Capacity to Manage Strategic Change

368. Introduction of the PHC reforms is a complex strategic change process. More emphasis needs to be placed on change management to balance a predominantly technical approach driven by training.

369. It is necessary to rapidly develop a critical mass of middle and senior level managers and health professionals who can act as a cadre of change agents. Exposure to international experience and experts was highly valued by key respondents who had been members of the Manas team and who now occupy senior positions within the health system. The World Bank, amongst others, has supported initiatives to train senior policy makers and provided support to the MOH Health Reform Unit in policy development and analysis. The Health Policy Analysis Unit, established as part of the Manas Health Reform Program with support from WHO-Euro, DFID and Kyrgyz MOH, works as a closely integrated arm of the MOH providing critical intelligence on PHC reforms to the MOH Health Reform Unit on key issues to enhance evidence-based policy making.[50]

370. More emphasis needs to be given to training middle level management in PHC to implement the next phase of PHC reforms, building on initiatives led by the HPAU, the joint World Bank/WHO-Euro Flagship Program, the European Observatory and ZdravPlus. This training should be provided by a local cadre supported by international experts. There is a need to establish an adequately resourced Center for Health Management to provide training in areas such as health management, health economics and evidence-based policy.[51]

10.7. Monitoring, Evaluation and Analytic Capacity

371. As with the other countries in this study, a fundamental problem with the PHC reforms is the lack of meaningful and systematically collected data that can be analyzed to demonstrate changes in key reform objectives.

372. In the Kyrgyz Republic, as with other countries in the study, there was no baselining in the pilot sites to enable before- and after-intervention analysis. Further, there are no comparative studies planned to compare and contrast pilot sites with matched non-pilot sites.

373. Although the Kyrgyz Republic has developed an impressive M&E system within the MHIF, the PHC component of the system needs enhancing. Although large amounts of data are collected regularly by the MHIF, these cannot be regularly analyzed to generate timely information for monitoring, evaluation and evidence-based decision making. This is because of absolute shortage of human resources to assist the very able Director and Deputy Director of the MHIF. Resource-constrained analytical capacity is dedicated to analyzing pharmaceutical utilization and hospital activities but there is limited analysis of the impact of the PHC reforms – especially how training, new per capita contracts and the FGP model have influenced the quality of care, referral patterns and user satisfaction. Monitoring and evaluation of reforms, with the objective of evidence-based decision making, should be a key function of MOH to enable discharge of an effective stewardship function.

374. The existing M&E systems at the MHIF and the MOH need to be augmented by expanding to include elements relevant to PHC. There is a need to identify a set of core indicators that are collected at the PHC level to capture relevant, reliable and timely data to asses whether health system objectives are achieved and to inform policy decisions.

375. Development of adequate and appropriate analytical capacity within the MHIF and the MOH are critical for the next stage of reforms.

10.8. CONTRACTING

376. Contracts have been successfully introduced in the regions where the FGP model has been introduced and can be used as an effective tool to improve equity, service quality, efficiency and effectiveness. However, to achieve these objectives there needs to be a move from simple per capita contracts to more sophisticated contracts with explicit quality and performance criteria and commensurate incentives to reward FGPs that achieve these. However, such a shift will require (i) significant analytical and execution capacity at MHIF and MOH to develop, implement, manage and monitor more sophisticated contracts; (ii) robust information systems in PHC to capture relevant and timely data on activities and outcomes; (iii) appropriate incentive systems; and (iv) more stability in the health care financing (i.e., no accumulation of debts or arrears to health providers).

10.9. INTEGRATION, CONTINUUM OF CARE AND REFERRAL SYSTEMS

377. Although an effective FM-centered PHC system is being introduced in the Kyrgyz Republic, there are no incentives to achieve a substantial secondary-to-primary shift – limiting the ability of PHC level to develop extended primary care and move beyond a gate keeping role.

378. Vertical integration is limited – in effect PHC and the hospital levels operate as two sub-systems with precarious links between them. As the financing of the two systems are unlinked, there is a future risk of cost-shifting between levels – especially as the per capita payment system without performance indicators will eventually lead to increased referrals to reduce workload at the PHC level, undermining gate keeping, continuity and comprehensiveness functions of the PHC level. Although empirical evidence to date does not show such a shift in the Kyrgyz Republic, experience from other countries at a more advanced stage of PHC reforms has shown this to be a problem. Similarly, case-mix based payment systems will encourage early discharge of patients to the PHC level. In the Kyrgyz Republic, there are excellent financing and organizational foundations (such as autonomous FGPs, contracts, per capita payment system, partial fundholding) on which to build the PHC reforms and introduce payment systems, such as full fundholding, that encourage innovation, improved quality and cost-efficiency.

379. Without mechanisms that encourage development of an effective interface between primary and secondary levels, it will be difficult to develop an integrated system with a continuum of care.

10.10. REFORMING THE UNDERGRADUATE MEDICAL TRAINING CURRICULUM

380. The existing undergraduate curriculum no longer meets the needs of Kyrgyz Republic and needs to be urgently reformed, with substantial refinement of the existing practices to embrace modern teaching and training methods as well as content that is more appropriate to needs of the Kyrgyz Republic.

10.11. COMMUNICATING THE REFORMS

381. Communication between and within levels of the health system and with the public is limited – identified by those interviewed as a critical problem. The benefits of FM-centered PHC system are not

adequately communicated to citizens and health professionals. There is, hence, limited understanding of FM and modern PHC among health professionals, citizens and politicians, who see FM-centered PHC in the Alma Ata mode as 'basic' public and personal health services – a Western construct, and a retrograde step from 'advanced' Soviet medicine.

382. Inadequate communication and limited engagement of the operational level lead to the reforms being perceived by some as 'top-down'. This is a barrier to full scale-up and sustainability of an FM-centered PHC system.

383. A clear and all-embracing communication strategy is necessary to increase visibility of PHC reforms, to inform users and other key stakeholders of the expected benefits, and to increase ownership of the process.

10.12. SUSTAINABILITY

384. Although impressive, the achievements are fragile given the systematic reduction of public funding for the health system, low pay levels, and visible discontent amongst the policy makers and health professionals with the pace of development in the legal base of PHC and FM.

11. LESSONS LEARNED

11.1. CRITICAL SUCCESS FACTORS FOR SUSTAINED DEVELOPMENT OF PHC

385. The study has identified a number of critical success factors, including (i) Branding FM and image building to improve the status of FM specialists as compared with narrow specialists; (ii) Improved work environment and conditions for FM teams; (iii) Improved communication between and within levels of the health system and with the public to share objectives and values of FM, develop trust and increase ownership; (iv) Improved coordination of key agencies; (v) A holistic approach to reform with simultaneous multifaceted interventions to achieve an enabling legal environment, organizational restructuring to enable emergence new provider forms with increased autonomy, new financing methods, resource allocation mechanisms that address inequities, provider payment methods that overcome limitations of systems based on line-item-budgeting and salaries, contracts and evidence-based care guidelines to enhance quality and establish minimum standards; (vi) Approach to reforms as a strategic change process; (vii) Ensuring sensitivity and responsiveness to rapidly changing context; and (viii) Having a clearly articulated and planned exit strategy.

11.2. COORDINATION

386. The Kyrgyz Republic has been particularly successful in coordinating the activities of international agencies. In effect, a loose 'operational SWAP' has been in place for several years, with the MOH successfully coordinating inputs supported by WB, WHO, USAID, DFID, ADB and SDC. This has meant that activities have not been fragmented or duplicated and a coherent sector development program has emerged underpinned by the Manas Reform Program.

387. There are discussions among the donors and the Kyrgyz Government to develop a SWAp. This is a logical evolution of the current arrangements. However, the complexity of coordinating the donor agencies and managing a SWAp should not be overlooked, and appropriate and sustained support should be provided to the Kyrgyz MOH.

11.3. MANAGING STRATEGIC CHANGE

388. Moving out of 'pilot' and 'experiment' mode is critical to institutionalize and systematize changes by timely update of laws and regulations to sustain the momentum.

389. Although it is necessary to invest in key individuals to develop champions of reform, this must be balanced with wider engagement of stakeholders to achieve consensus on reform objectives. Combining bottom-up and top-down approaches with simultaneous investment in key individuals, institutional development at different levels, and institutionalization will help increase chances of sustainability.

390. Balancing short-term success and sustainability is important. Achieving system change takes time. Short-term projects have value, but sustained support over a five to eight year period is a realistic time scale to achieve and institutionalize change.

11.3.1. Communication

391. Inadequate and ineffective communication breeds resistance and creates barriers to change. The 'fear of the unknown', frequently quoted by the key informants, needs to be addressed through a well-developed communication strategy aimed at users, health professionals, managers and decision makers.

11.3.2. Level of Intervention

392. It is necessary to establish strong vertical and horizontal links and simultaneously work both at policy and operational levels – the former to institutionalize changes and the latter to create shared ownership, reduce resistance, learn lessons and develop a critical mass of professionals to implement policies. Governance structures can limit what can be achieved at regional or organizational level if there is no clear link to national policy level. Without linkages, local level initiatives and innovations have limited impact on central policies and cannot diffuse to other regions. In the PHC reform program supported by the WB, there has been a visible effort to work at both policy and operational levels.

11.4. RESPONSIVENESS

393. The fluidity of the socio-political and the economic context in the Kyrgyz Republic means that political economy of health reforms and factors influencing strategic change must be continually analyzed to ensure generic solutions are not applied to complex socio-political problems. Given this fluidity, programs should adopt a flexible approach to implementation – allowing timely adaptation to contextual changes and responding to windows of opportunity, but without sacrificing a strategic approach.

11.5. MONITORING AND EVALUATION

394. Resources are needed to develop appropriate metrics, information systems, and analytical capacity to monitor progress of PHC reforms and inform policy.

11.6. DISSEMINATION AND CROSS-LEARNING

395. Regional collaborations and regular exchanges to share lessons are highly valued by the respondents and should be encouraged and supported, with dissemination of experience within and among countries. Key documents (such as technical reports) should be available in local languages and disseminated widely to local counterparts.

11.7. EXIT STRATEGY

396. The reforms in the Kyrgyz Republic are highly successful. Good collaboration has been achieved between the international agencies and the government, with an operational SWAp established. The case study demonstrates that the WB can add much value to the reform process. However, success brings with it responsibility. It is important that a clear exit strategy is developed and agreed with local counterparts to ensure there are no gaps between projects and to sustain the transformation process.

ANNEX 1: EVALUATION FRAMEWORK

397. An evaluation should describe key features of the main policies, structural changes, new financing and care provision mechanisms and processes introduced as a result of reforms. Where possible, the evaluation should also describe and measure changes in health system performance and try to establish causal linkages between intervention and outcome – to assess the extent to which the changes observed can be attributed to the reform implemented. However, in real life, attribution and establishing causal links are not easy. Health reforms do not happen in a laboratory.[52] They are not 'ahistorical' or 'acontextual' but tend to follow a trajectory of development and changes over a period of time – and, hence, can be considered part of a continuum rather than a discrete event. Further, reforms are not isolated and clearly discernable experimental interventions in a controlled setting, but are multifaceted and complex organizational change programs.

398. A further difficulty with evaluation of health reforms arises with measuring health outcomes, which are often influenced by multiple personal and non-health factors – such as the stage of economic development in the country, income and education levels, environment and housing.[53, 54]

399. In practice, it is extremely difficult to separate and control for the contextual factors from the policy interventions and clearly establish causal links. Given these difficulties, any method used to evaluate complex policy interventions will have limitations in establishing causal links. A further difficulty arises in comparing different countries or settings where it is often difficult to draw conclusions from international health care system comparisons.[55] Nevertheless, a systematic approach to evaluation can yield useful information that can be used to reach plausible conclusions about cause and effect.

400. A number of frameworks have been developed for analyzing the performance of health systems. For instance, the WHO Performance Assessment Framework (WHO PAF) is used for comparative evaluation of health systems performance of the member countries and provided the basis of the World Health Report 2000.[56] The WHO PAF assesses health systems performance in terms of attainment of a number of goals – average health level, distribution of health, average responsiveness, distribution of responsiveness and fairness of financial contribution. Both the World Health Report 2000 and the WHO PAF generated significant debate on measuring health system performance, and the framework has been further developed and refined.[57]

401. There are other frameworks that focus on efficiency[58], financing[59], equity of access and financial sustainability.[60] In relation to PHC, there are evaluation frameworks that focus on measuring quality.[61]

402. These frameworks have strengths but also limitations. Many of the existing frameworks for health systems/PHC performance assessment and evaluation measure health sector inputs, resources utilization, activity levels and changes in processes rather than outputs or outcomes. This is probably because health sector inputs and processes are easier to measure and the data on these can be obtained in the short term. Any analytical framework used to assess health systems should capture not just inputs and processes but also outputs and outcomes of the system, as well as the interrelationships between the system components.[62] Moreover, the wider context, within which the health system functions and interacts, also needs to be understood and contextual changes captured in the analysis.

403. A health system is made up of elements that interact. The sum of the system is greater than its parts. The interactions of these elements affect the achievement of health system goals and objectives. Therefore, any framework for analyzing health systems should be able to capture not just the changes in goals and objectives but also system elements.

ANNEX 2: SUMMARY OF FACILITY SURVEY INSTRUMENT

Section	Subjects
1. General information about PHC facility	Classification by the type of facility and administration Demographic data Geographic data Sanitation and conditions
2. Scope of services	A list of services provided by PHC facility, characterizing: Breadth of services Extended care Support services
3. Organization	A list of questions characterizing general management of PHC facility, management of finances and provision of services Inclusiveness into decision making
4. Availability Data	Questions about the availability of: Personnel and changes in staffing Buildings and utilities Medical and non-medical equipment. Medical equipment is divided into general, obstetric/gynaecological, ophthalmology, ENT, respiratory, sterilization and surgical Drugs and other consumables, with subdivision on vaccines and contraceptives Services and workload of personnel
5. Comprehensiveness	A list of 11 activities at first contact, such as: Emergency, Chronic Illness, Antenatal care, Postnatal care, Vaccination, Certification and administrative forms Questions about investigation procedures and referrals
6. Quality	Data on supervision activities, use of clinical guidelines, availability of essential drugs and ability to use them Data on quality on such activities as: Vaccination, Prenatal consultation, Family planning, Other preventative programs, Management of equipment and the data routinely collected
7. Financial data	Evolution of budgets and expenditures

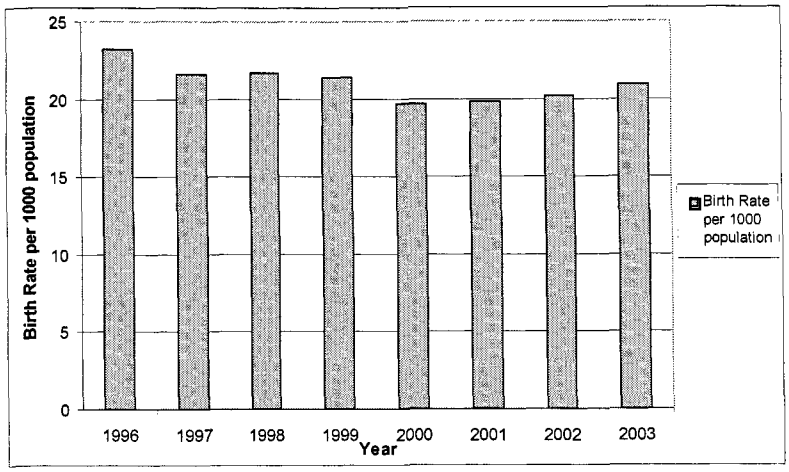
ANNEX 3: SUMMARY OF NIVEL TASK PROFILE INSTRUMENT

Section	Parameters
1. Practice and personal information	Demographic data Education and training Employment status; normal working hours Characterization of the population and location of the practice Working arrangement; teamwork Average workload; home visits; emergency services Practice organization: staff and equipment Medical record keeping; use of computer
2. Provision of medical technical procedures	A list of 14 medical techniques, such as: Wedge resection of ingrown toenail; Wound suturing; Insertion of IUD; Fundoscopy; Strapping an ankle; Setting up an intravenous injection; etc. Perceived involvement of the GP if patients in the practice population need such procedures – indicated using a five-point scale ranging from '(almost) always' to 'seldom/never'.
3. Provision of first contact care	27 short case descriptions of patients' health problems such as: Child with a rash; Woman aged 18 asking for oral contraception; Man aged 24 with chest pain; Man aged 50 who burnt his hand; Woman aged 50 with a lump in her breast; Woman aged 60 with acute symptoms of paralysis/paresis; Man aged 29 with lower back pain; Couple with relationship problems; Woman aged 50 with psychosocial problems related to her work Perception regarding prevalence of these conditions and presentation to the FP – indicated using a five-point scale ranging from '(almost) always' to 'seldom/never'
4. Provision of screening, preventive care, etc.	Questions about the routine of the GP concerning: Measuring blood pressure; Measuring blood cholesterol level; Taking cervical smears for cancer screening; Examination for breast cancer screening Questions about involvement of GPs in: Health education clinics on smoking cessation, food intake and alcohol consumption; Intra-partum care; Paediatric surveillance clinics; Family planning/contraception; Homeopathic medicine
5. Provision of disease management	A list of 17 diseases, such as: Hyperthyroidism; Peptic ulcer; Congestive heart failure; Peritonsillar abscess; Uncomplicated diabetes type 2; Depression Perceived involvement of the GP in the treatment if these cases occur in the practice population could be indicated on a five-point scale ranging from '(almost) always' to 'seldom/never'
6. Job satisfaction	Seven statements on aspects of GPs' work, such as: "My work still interests me as much it ever did" "Assuming that pay and conditions were similar, I would do non-medical work" Agreement expressed on a five-point scale, varying from 'agree strongly' to 'disagree strongly'.

ANNEX 4: HEALTH INDICATORS FOR THE KYRGYZ REPUBLIC

404. The life expectancy in 1996 was 66.6 years but increased in 2003 to 68.6. The life expectancy varies by region: highest in Jalal-Abad (70.2 years) and lowest in Chui region (67.3 years). In 2003, the country had a natural population growth rate of 14 per 1,000, which declined from 16 per 1,000 in 1996. The birth rate in 2003 was 22 per 1,000, which declined from 24 in 1996 but is above replacement rate.[63] (Figure 54).

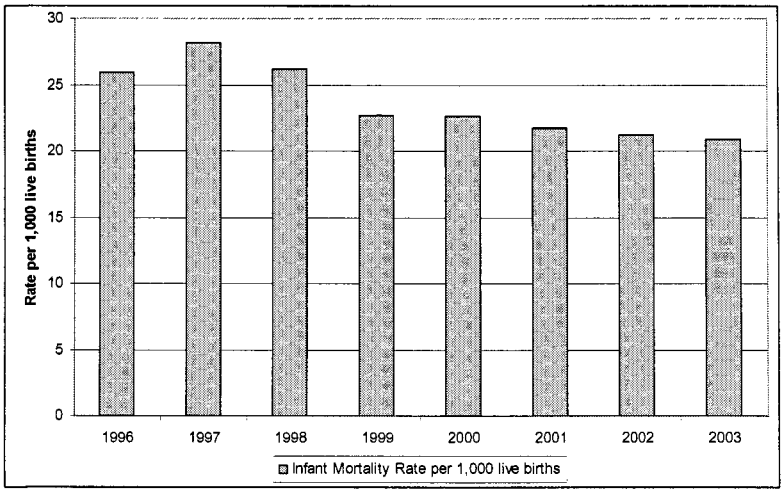
Figure 54: Birth Rate per 1,000 Population



405. The crude mortality rate in 2003 was 7 per 1,000 population, which declined slightly from 7.2 per 1,000 in 1996. There are significant regional variations in the crude mortality rate with a level of 5.4 per 1,000 population for Osh region and 10.2 for Chui region – almost a two-fold difference.

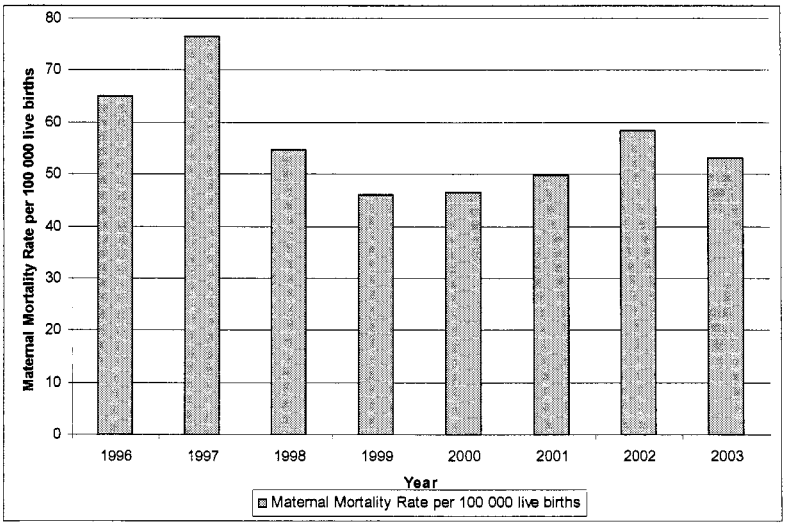
406. The average infant mortality rate has declined from 25.9 per 1,000 live births in 1996 to 20.9 in 2003 (Figure 55). Similarly, the under-five mortality rate has declined from 36.4 per 1,000 live births in 1996 to 27.6 per 1,000 live births in 2003. However, average levels mask regional disparities. The infant mortality ranges from 15.9 per 1,000 live births in Issyk-Kul region to 22.4 in the rural and mountainous Batken region. A similar disparity is observed for under-five mortality rate, which ranges from 19.2 per 1,000 live births in Issyk-Kul region to 36.8 in Batken region.

Figure 55: Infant Mortality Rate per 1,000 Live Births (1996-2003)



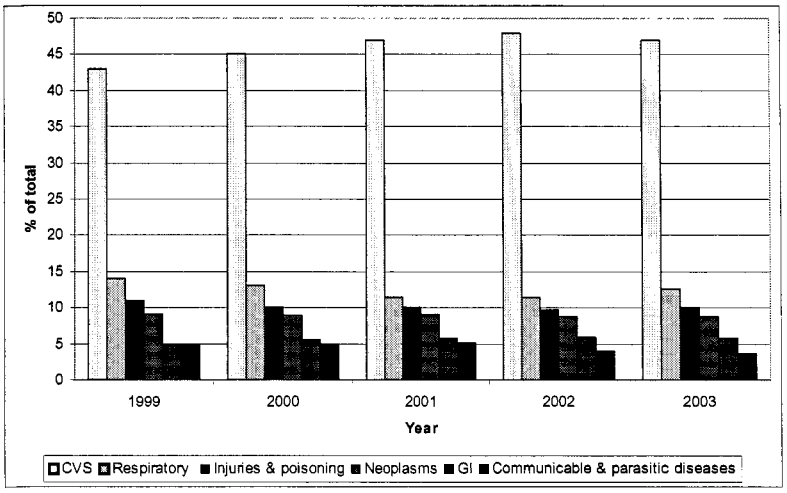
407. The average maternal mortality rate, which was 65 per 100,000 live births in 1996, has declined 18.5 percent to 53.1 per 100,000 live births in 2003[64] (Figure 56). However, there are significant regional inequities. In 2003, the rate in Naryn Oblast was 29.2 per 100,000 live births (declined from 134 in 1996), and in Talas Oblast it was 104.1 (increased from 28.7 in 1996).[65]

Figure 56: Maternal Mortality Rate per 100,000 Live Births (1996-2003)



408. The leading causes of death are cardiovascular and respiratory diseases, respectively accounting for 43 percent and 14 percent of the total (Figure 57). The other causes are injuries, poisoning, neoplasms and communicable diseases.

Figure 57: Leading Causes of Mortality as a Percentage of Total



409. A household survey undertaken in September 2001 showed that the differences in health outcomes – as observed in crude, infant and maternal mortality rates – are also reflected in morbidity levels. The Survey found that there were regional differences in chronic ill health. Other things being equal, people living in Naryn are more than twice as likely to report chronic ill health as those living in Bishkek, whereas people in Batken, a rural and poor region, were three times less likely to report chronic ill health than those in the capital city Bishkek.[66]

410. In line with other household surveys in the ECA region, the survey found an inverse relationship between economic and health status. Individuals living in the most well-off households were twice as likely to report chronic ill health as those living in the poorest households, even after controlling for other factors such as differences in age and sex. For acute illness the observed relationship persisted with persons in the most well-off households 37 percent more likely to report suffering from an acute illness or injury in the last 30 days than those in the least well-off households.[67]

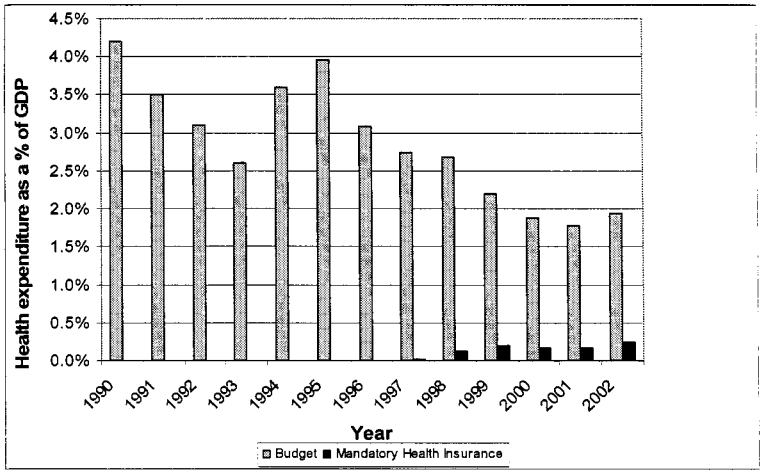
411. The survey found that "14 percent of men and 22 percent of women reported suffering from an acute illness or injury within the 30 days prior to the survey (i.e., during February 2001). The most common cause of acute illness was cold/influenza. Women were 1.63 times more likely to have experienced an acute illness than men, and such illnesses were more common among children and pensioners than people of working age."[68] The reporting of ill health is in line with other studies that have shown that men are less likely to report ill health as compared with women.[69]

ANNEX 5: HEALTH EXPENDITURE IN THE KYRGYZ HEALTH SYSTEM

412. Health expenditure as percentage of GDP is low by regional and international standards, and in 2003 was 4 percent of GDP.

413. The level of public expenditure on health sector declined significantly from 4 percent of GDP in 1990 to 1.9 percent by 2002 (Figure 58).

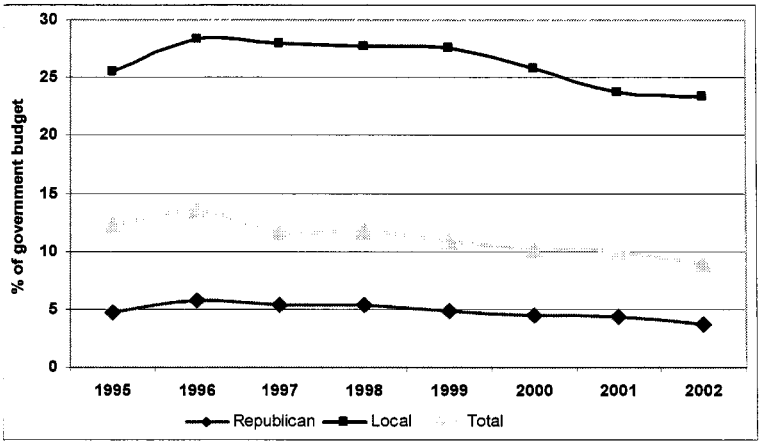
Figure 58: Health Expenditure as a Proportion of GDP (1990-2003)



Source: MOF, MHIF, National Statistic Committee

414. Similarly, health expenditure as a share of total government expenditures declined from 12.2 percent of the government budget in 1995 to 9.6 percent in 2002. The decline at republican level was from 5 percent to 4 percent, and much greater at local level: from 28 percent in 1996 to 23 percent in 2002 (Figure 59).

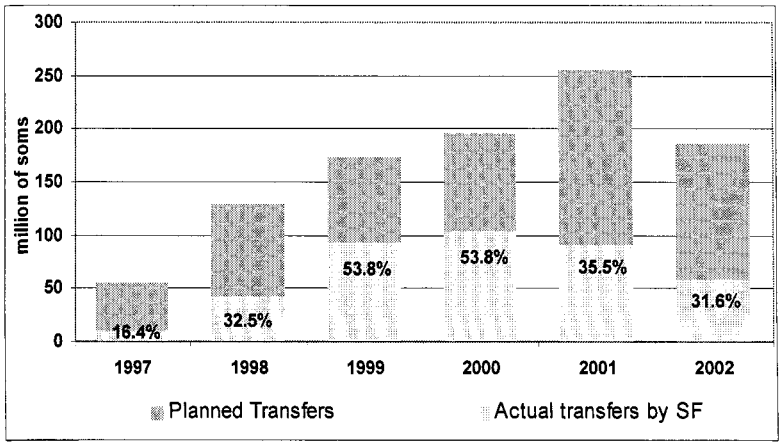
Figure 59: Public Health Expenditures as a Percentage of Total State Budget



Source: Central Treasury under the MOF, MHIF, National Statistic Committee

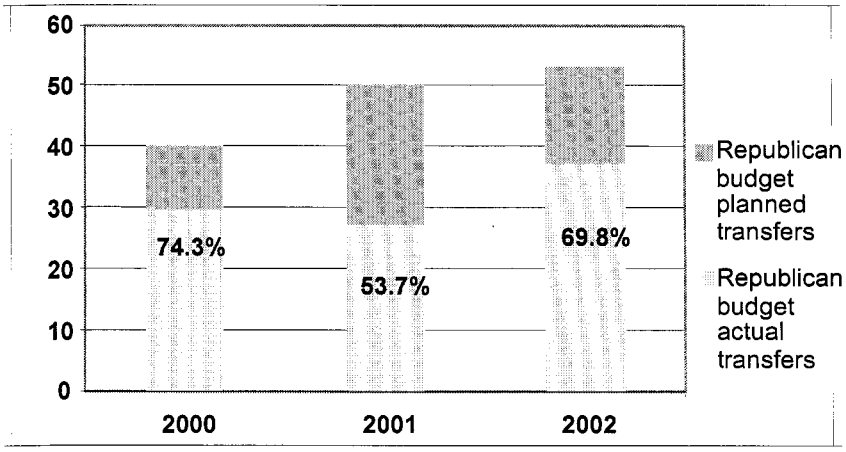
415. Part of the reason for the decline in public sector expenditure on health is that the expected transfers from the Social Insurance Fund to the MHIF to cover the unemployed and the pensioners failed to materialize (Figure 60).[13]

Figure 60: Social Fund Transfers to MHIF



416. Similarly, the actual transfers from the Republican Budget to the MHIF were only 70 percent of the amounts planned (Figure 61).

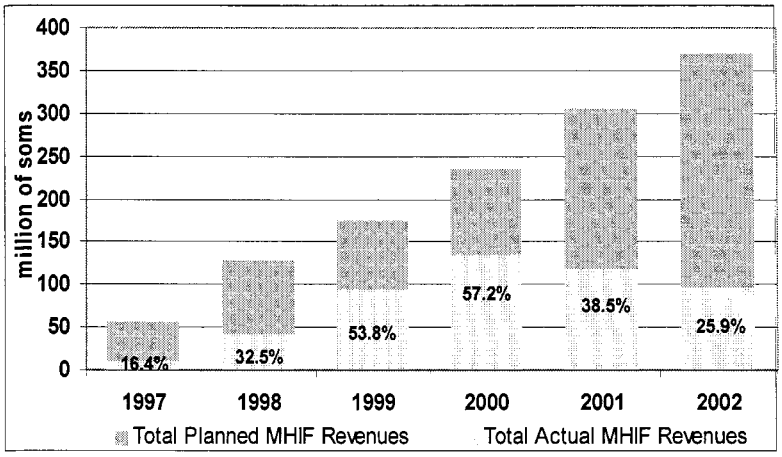
Figure 61: Planned vs. Actual Republican Budget Transfers to the MHIF (in millions of soms)



417. Collection of payroll tax toward the premiums for the MHIF has also proved challenging and were much lower than expected. Not surprisingly, in 2002, the actual revenues of the MHIF were around 25 percent of the planned figure (Figure 62).

[13] The situation with the SF transfers has changed. If needed, the diagram could be replaced with one including 2003 and 2004 data.

Figure 62: Planned and Actual MHIF Revenues



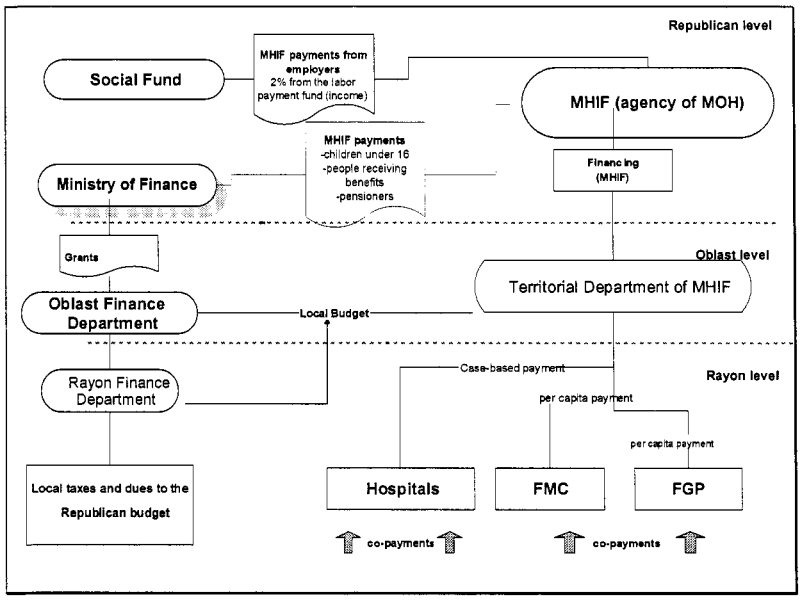
ANNEX 6: HEALTH SYSTEM FINANCING

418. The Social Fund (a quasi-government authority set up in 1994 through a merger of the Pension Fund, the Employment Fund and the Social Insurance Fund) collects all social and health insurance payments, which amount to 39 percent of the payroll tax. The MHI, introduced in 1997 for the employed and expanded in 2000 to include children under the age of 16 and social welfare recipients, is small and comprises 2 percent of payroll tax levied on employers. Farmers who own and work their land pay 2 percent of the value of their land as health insurance contribution. Health insurance revenues collected by the Social Fund are transferred to the MHIF but constitute a small source of funds for MHIF, which is largely funded through general budget financing. Although the Social Fund is required to contribute the equivalent of 1.5 percent of the minimum wage per pensioner and unemployed person, in practice these transfers to MHIF are erratic.

419. The law on Single Payer stated: "The Single Payer system integrates financial resources for health care from state budget revenues and mandatory health insurance contributions for the purpose of a single-pipe funding of public health services, curative medical services and pharmaceuticals."[70]

420. The health system is now financed from general tax revenues (Republican and local taxes), compulsory health insurance contributions, out-of-pocket payments and loans/grants from external donors. Voluntary health insurance is very small. The Health Insurance Fund (HIF) pools the finances from general budget, payroll taxes, and population co-payments (Figure 63).

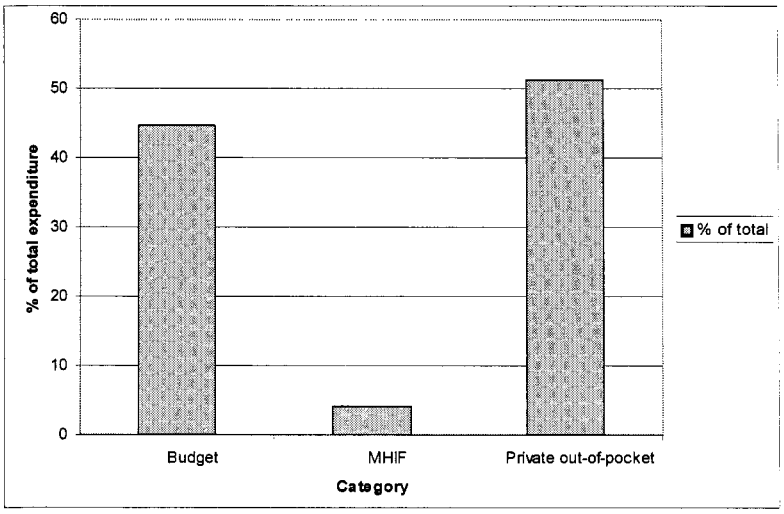
Figure 63: Financing Flows in the Health System



Source: Modified from Dr Ainura Ibragimova, Director of MHIF

421. In addition to the government budget transfers and Health Insurance Fund revenues, additional but limited funding is received from earmarked taxes (sin-taxes for tobacco and alcohol) and user-charges for outpatient consultations, prescribed drugs and daily charges for inpatient care. In 2001, the Kyrgyz Republic spent 4 percent of GDP on health care amounting to US$12.3 per capita. Of this, more than 50 percent was out-of-pocket, 45 percent from central and local government tax revenues and 4 percent from health insurance[71] (Figure 64).

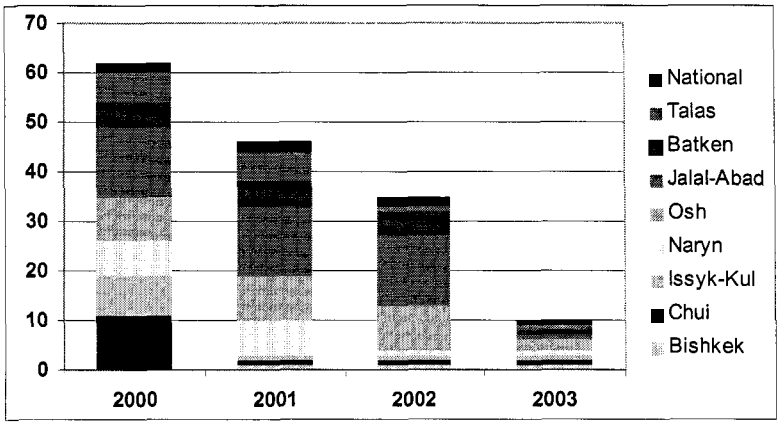
Figure 64: Health Financing by Source



422. By pooling oblast, city, district and village health sector budgets, a single pipe payer system has also been introduced at regional level, thereby consolidating the inefficient multi-payer system that existed[72] – with the creation of the Territorial Department of the Mandatory Health Insurance Fund (TD-MHIF) which has the responsibility of managing health system finances at oblast level. The TD-MHIF, receives revenues from the Republican MHIF, the Ministry of Finance, as well as the oblast, city and rayon budgets (the latter two via the oblast administration). The TD-MHIF monitors quality and appropriateness of health services provided under the Program of State Guarantees. The Single Payer Reforms were implemented in four phases: (i) Issyk-Kul and Chui regions in 2001; (ii) Talas and Naryn regions in 2002; (iii) Jalal-Abad and Batken regions in 2003, and; (iv) Osh and Bishkek Cities in 2003 and in Osh oblast in 2004.[73]

423. Single Payer Reforms at oblast level have succeeded in pooling sub-national finances for health care (from oblast, city and rayon level taxes) at the Territorial Department of the Mandatory Health Insurance Fund (TD-MHIF). These funds are used to finance local health services although a funding gap still exists due to: (i) A decline in public funding from central government; (ii) Line item budgeting with rules which prevent virement between line items and create disincentives for providers to restructure to achieve efficiency savings, and; (iii) Reduced funding by some local governments following funds flows into the health system from official co-payments.[74] Republican tax revenues predominantly fund Republican health facilities in Bishkek (Figure 65).

Figure 65: Total Number of Regional and National Purchasing Pools, 2000-2003



Source: MHIF

ANNEX 7: PROVIDER PAYMENT SYSTEMS FOR HOSPITALS

424. Prior to health reforms, hospitals were paid a line-item budget based on inputs, capacity and activity levels. In 1997, the MHIF introduced a case-based provider payment system for hospitals. Chui region and Bishkek City were selected as the demonstration sites for the new case-based provider payment systems for hospitals. By the end of 1997, 13 hospitals had established contracts with the MHIF for service delivery and a further 50 hospitals applied to join the scheme in 1998. By April 1999, around 55 hospitals and 290 FGP practices had established service delivery contracts with the MHIF.

425. Hospitals now receive their income from two sources: First, an allocation according to an 18-line item budget (reflecting the number of staff and beds, and historic expenditure); and second, for hospital inpatient care case-based payment system according to a case-mix system, similar to Diagnosis-Related Groups (DRG) introduced in 2000. There are around 142 DRGs and the amount of payment per case varies in each oblast due to equalization norms and regional particularities. For outpatient activities, hospitals receive an annual per capita payment per inhabitant in the region they cover as well as fee-for-service payments. There are various forms of co-payment by the patients for hospital care. In case of self-referral, patients pay the full price.

426. Other health institutions, such as Health Promotion Centre, Medical Information Center, Sanitary Epidemiological Service, and vertical programs (such as HIV/AIDS, reproductive health, tuberculosis control, psychiatry and sports medicine) are paid by the TD-MHIF according to a line-item budget.

ANNEX 8: CURRICULUM FOR RETRAINING DOCTORS AS FAMILY PHYSICIANS

Phase I

Number	Training course	Number of study hours		
		Total (hours)	Lectures	Family practice
1.	Organization of the work of family physician, health insurance	28,5	7,5	21,0
1.1.	General principles of the PHC	1,5	1,5	-
1.2.	Overview of the health care reforms and transition to health insurance system	1,5	1,5	-
1.3.	Organization of the work according to the FM principles	19,5	1,5	18,0
1.4.	Financing of FGPs	1,5	1,5	
1.5	Organization of the work of Family Medicine Center (FMC)	4,5	1,5	3,0
2.	Rational drug use	3,0	3,0	-
2.1.1	Selection of drugs from "Drug formulary" (list of essential drugs for use by family physicians) of the Kyrgyz Republic	1,5	1,5	-
2.1.2	Evidence-based medicine	1,5	1,5	-
3.	Internal diseases	98,0	40,0	58,0
3.1.	Pulmonary diseases	13,5	4,5	9,0
3.1.1	Pneumonias.	4,5	1,5	3,0
3.1.2	Chronic obstructive lung diseases	4,5	1,5	3,0
3.1.3	Bronchial asthma	4,5	1,5	3,0
3.2.	Cardiovascular diseases	31,0	15,0	14,0
3.2.1	Atherosclerosis	1,5	1,5	-
3.2.2	Arterial hypertensions: Hypertension , Symptomatic hypertensions	9,0	3,0	4,0
3.2.3	Coronary heart diseases:	7.0	3,0	4,0
3.2.3	Angina	3,5	1,5	2,0
3.2.3	Myocardial infarction	3,5	1,5	2,0
3.2.4	Myocardial diseases	5,0	3,0	2,0
3.2.4	Myocarditis	1.5	1,5	-
3.2.4	Cardiomyopathies	1,5	1,5	-
3.2.5	Chronic heart failure	1,5	1,5	-
3.2.6	Emergency in cardiology: hypertensive crisis, pulmonary	3,5	1,5	2,0

Number	Training course	Number of study hours		
		Total (hours)	Lectures	Family practice
	edema, cardiogenic shock, etc.			
3.2.7	Heart rhythm and conductivity disorders	1,5	1,5	2,0
4.	Joint diseases and connective tissue diseases	16,0	6,0	10,0
4.1.1	Rheumatic fever	1,5	1,5	
4.4.2	Rheumatic heart (valvular) diseases: mitral and aortic defects	3,5	1,5	2,0
4.4.3	Rheumatoid arthritis	3,5	1,5	2,0
4.4.4	Connective tissue diffuse diseases: systemic lupus erythematosus, systemic scleroderma	2,0	-	2,0
4.4.5	Gout	2,0	-	2,0
4.4.6	Osteoarthritis	3,5	1,5	2,0
5.	Gastrointestinal diseases	17,0	9,0	8,0
5.1.1	Diseases of esophagus	1,5	1,5	-
5.1.2	Gastritis	3,5	1,5	2,0
5.1.3	Peptic ulcer	3,5	1,5	2,0
5.1.4	Chronic hepatitis and cirrhosis	3,5	1,5	2,0
5.1.5	Intestinal diseases	1,5	1,5	-
5.1.6	Irritable bowel syndrome	3,5	1,5	2,0
6.	Renal diseases	12,0	3,0	9,0
6.1.1	Glomerulonephritis	4,0	1,0	3,0
6.1.2	Pyelonephritis	4,0	1,0	3,0
6.1.3	Renal failure (acute and chronic)	4,0	1,0	3,0
7.	Endocrinological diseases	12,0	3,0	9,0
7.1.1	Diabetes mellitus	6,0	1,5	4,5
7.1.2	Thyroid diseases	6,0	1,5	4,5
8.	Diseases of blood	14,5	5,5	9,0
8.1.1	Anemia: Iron-deficiency, vitamin B12 (folic acid) deficiency	4,5	1,5	3,0
8.1.2	Hemorrhagic diathesis	4,5	1,5	3,0
8.1.3	Leukemia	4,5	1,5	3,0
8.1.4	DIC-syndrome	1,0	1,0	-
9.	Infectious diseases	19,5	9,5	10,0
9.1.1	Brucellosis	3,5	1,5	2,0
9.1.2	Acute intestinal infections	3,5	1,5	2,0

Number	Training course	Number of study hours		
		Total (hours)	Lectures	Family practice
9.1.3	HIV	1,5	1,5	-
9.1.4	Viral hepatitis	3,5	1,5	2,0
9.1.5	Peculiarities of pediatric infections in adults	2,0	-	2,0
9.1.6	Pediatric infections (including parasitic infestations)	3.5	1,5	2,0
9.1.7	Extremely dangerous infections: plague, cholera, anthrax	2.0	2,0	-
10.	Phthysiology	13,5	4,5	9,0
10.1.1.	DOTS strategy against tuberculosis	4,5	1,5	3,0
10.1.2	The main clinical forms of tuberculosis and their signs	4,5	1,5	3,0
10.1.3.	Prophylaxis of tuberculosis. Chemotherapy of tuberculosis in outpatient settings	4,5	1,5	3,0
11.	Neurological diseases	12,0	3,0	9,0
11.1.1.	Cerebrovascular diseases (stroke, cerebral infarction)	6,0	1,5	4,5
11.1.2.	Peripheral nervous system diseases	6,0	1,5	4,5
12.	Dermatovenerologic diseases	15,0	6,0	9,0
12.1.1.	Skin inflammatory diseases and rashes	4,5	1,5	3,0
12.1.2.	Parasitic and fungal diseases of the skin	4,5	1,5	3,0
12.1.3.	Papulosquamous diseases of the skin	1,5	1,5	-
12.1.4.	Sexually transmitted diseases (STD)	4,5	1,5	3,0
13.	Psychiatry	15,0	6,0	9,0
13.1.1.	Mental health and psychiatric diseases	4,5	1,5	3,0
13.1.2.	Depression and anxiety disorders	4,5	1,5	3,0
13.1.3.	Retardation of psychological development	4,5	1,5	3,0
13.1.4.	Questions of narcology	1,5	1,5	-
14.	Questions of rehabilitation	4,5	4,5	-
14.1.1.	Rehabilitation of the patients with bronchial and pulmonary diseases	1,5	1,5	-
14.1.2.	Rehabilitation of the patients with orthopedic diseases and injuries	1,5	1,5	-
14.1.3.	Sanatorium and health resort stage of the rehabilitation. Health resorts in the Kyrgyz Republic	1,5	1,5	-
15.	Epidemiology	6,0	6,0	-
15.1.1.	The role of epidemiological activities in detection the nidus of infection and the ways of transmission	1,5	1,5	-
15.1.2.	Epidemiological observation of infectious diseases	1,5	1,5	-

Number	Training course	Number of study hours		
		Total (hours)	Lectures	Family practice
	Conception of epidemiological process. Registering and reporting system for infectious diseases.			
15.1.3.	Epidemiology of viral hepatitis. The main regulations of the prekazis #222, issued on 07.15.2004 by Kyrgyz Ministry of Health. Special program "Viral hepatitis". Epidemiological observation of hospital infections.	1,5	1,5	-
15.1.4.	Medical examination of people entering new job and workers exposed to hazardous factors and adverse conditions of the work (done periodically).	1,5	1,5	-
16.	Laboratory diagnostics	14,0	6,0	8,0
16.1.1.	Interpretation of laboratory test results (conception of a norm and of an abnormality). Sensitivity and specificity of the tests. Liver and renal tests.	1,5	1,5	2,0
16.1.2.	Electrolyte disorders. Laboratory standards and their reliability. Influence of the age on laboratory parameters.	1,5	1,5	2,0
16.1.3.	Integrating tests. Selection of the best tests and their execution sequence. Lipid disorders. Tests used for thyroid diseases.	1,5	1,5	2,0
16.1.4.	Laboratory changes in anaemia and hemorrhagic diseases. Anticoagulation tests.	1,5	1,5	2,0
17.	Radiologic diagnostics	4,5	4,5	-
17.1.1.	Roentgen-diagnostics methods	1,5	1,5	-
17.1.2.	X-ray study of the bones and joints	1,5	1,5	-
17.1.2.	Ultrasound studies of internal organs	1,5	1,5	-
18.	Pediatrics	60,0	30,0	30,0
18.1.	Infant feeding	3,0	3,0	-
18.1.1.	Breast feeding	1,5	1,5	-
18.1.2.	Feeding problems in neonates	1,5	1,5	-
18.2.1.	Immunity. Immunopathologic conditions.	1,5	1,5	-
18.2.2.	Observation of the healthy child. Neural, mental and physical development.	3,5	1,5	2,0
18.2.3.	Immunization schedule. Vaccine-prophylaxis. Organization of the vaccines for preschool and school children.	2,0	-	2,0
18.2.4.	Post-vaccine complications and emergency	1,5	1,5	-
18.2.5.	Nutritional disorders and dyspepsia. Rickets.	3,5	1,5	2,0
18.4.	Pulmonary diseases	8,5	4,5	4,0
18.4.1.	Acute bronchitis and bronchiolitis in children	1,5	1,5	-
18.4.2.	Acute pneumonia in children	3,5	1,5	2,0
18.4.3.	Bronchial asthma in children	3,5	1,5	2,0

Number	Training course	Number of study hours		
		Total (hours)	Lectures	Family practice
18.5.	Cardiovascular diseases	7,0	3.0	4,0
18.5.1.	Rheumatism in children	3,5	1,5	2,0
18.5.2.	Congenital heart disease	3,5	1,5	2,0
18.6.	Gastrointestinal diseases	9,0	3,0	6,0
18.6.1.	Gastroduodenitis	3,5	1.5	2,0
18.6.2.	Abdominal pain in children	3,5	1,5	2,0
18.6.3.	Biliary tract dyskinesia in children	2,0	-	2,0
18.7.	Renal and urological diseases	7,0	3,0	4,0
18.7.1.	Acute glomerulonephritis in children	3,5	1,5	2,0
18.7.2.	Urological inflammatory diseases	3,5	1,5	2,0
18.8.	Hematology	7,0	3,0	4,0
18.8.1.	Anemia in children	3,5	1,5	2,0
18.8.2.	Thrombohemorrhagic diseases in children	3,5	1,5	2,0
18.9.	Neonatology	6,5	4,5	2,0
18.9.1.	Perinatal encephalopathy.	1,5	1,5	-
18.9.2.	Convulsive syndrome and emergency conditions in children	3,5	1,5	2,0
18.9.3.	Borderline conditions in neonates	1,5	1,5	-
19.1.	Obstetric and gynecology	50,0	21,0	29,0
19.1.1.	Reproductive health in women. Family planning.	3,5	1,5	2,0
19.1.2.	Antenatal and postnatal care for pregnant women	3.5	1,5	2,0
19.1.3.	Miscarriage	3,5	1,.5	2,0
	Infertility	3,5	1,5	2,0
19.1.4.	Extragenital diseases in women and pregnancy	4,5	1,5	3,0
19.1.5.	Gestosis	3,5	1,5	2,0
19.1.6.	Normal deliveries	4,5	1,5	3,0
19.1.7.	Obstetric bleedings	4,5	1.5	2,0
19.1.8.	Postnatal suppurative and septic diseases	3,5	1,5	2,0
19.2.	Gynecology	16,5	7,5	9,0
19.2.1.	Gynecological inflammatory diseases. "Acute abdomen" in gynecology.	4,5	1,5	3,0
19.2.2.	Benign tumors of uterine and adnexa	4,5	1,5	3,0
19.2.3.	Diseases of cervix	4,5	1,5	3,0
19.2.4.	Menstrual disorders. Dysfunctional uterine bleeding, amenorrhea, climacteric syndrome.	1,5	1,5	-

Number	Training course	Number of study hours		
		Total (hours)	Lectures	Family practice
19.1.9.	Pediatric and adolescent gynecology	1,5	1,5	-
20.1.	General surgery	16,5	7,5	9,0
20.1.1.	"Acute abdomen" in surgery (acute appendicitis, bowel obstruction, perforation of peptic ulcer, acute cholecystitis)	4,5	1,5	3,0
20.1.2.	Suppurative diseases of breast	3,5	1,5	2,0
20.1.3.	Suppurative and inflammatory diseases of fingers and toes	3,5	1,5	2,0
20.1.4.	Diseases of rectum and anus	3,5	1,5	2,0
20.1.5.	Chest injures. Pneumothorax. Abdominal injures.	1,5	1,5	-
	Vascular surgery	3.0	3,0	-
20.1.6.	Diseases of peripheral vessels (varicose veins, phlebothrombosis)	3,0	3,0	-
20.2.	Anesthesiology and intensive care	22,5	4.5	18,0
20.2.1.	Cardiopulmonary resuscitation	4.5	1,5	3,0
20.2.2.	Anaphylaxis. Insect and snake bites.	4,5	1,5	3,0
20.2.3.	Emergency for acute poisoning	4,5	1,5	3,0
20.2.4	Emergency care	9,0	-	9,0
20.3.	Traumatology and orthopedics	13,5	4,5	9,0
20.3.1.	Traumatic shock. Cranial injuries, dislocations and fractures of long bones.	7,5	1,5	6,0
20.3.2.	Burns and frostbite	4,5	1.5	3.0
20.3.3.	Rehabilitation for orthopedic patients. Prosthesis.	1.5	1,5	-
20.4.	Urology	16,5	7,5	9,0
20.4.1.	Symptoms of urological diseases	1.5	1,5	-
20.4.1.	Genitourinary inflammatory diseases	4,5	1,5	3,0
20.4.2.	Stone disease	4,5	1.5	3,0
20.4.3.	Obstructive diseases	1,5	1,5	-
20.4.4.	Male reproductive system diseases. Emergency care in urology.	4,5	1.5	3,0
20.5.	Ophthalmology	13,5	4,5	9,0
20.5.1.	Eye injures. Red eye.	4,5	1,5	3,0
20.5.2.	Glaucoma. Cataract.	4,5	1,5	3,0
20.5.3.	Congenital diseases of eye.	4,5	1,5	3,0
20.6.	ENT	16,5	7,5	9,0
20.6.1.	External otitis and otitis media. Injures and hematoma of auricle.	4,5	1,5	3,0

Number	Training course	Number of study hours		
		Total (hours)	Lectures	Family practice
20.6.2.	Epistaxis (nasal bleeding). Acute and chronic rinosinusitis.	1.5	1,5	-
20.6.3.	Acute and chronic tonsillitis. Thrush.	4,5	1,5	3,0
20.6.4.	Acute and chronic laryngitis and tracheitis. Stenosis of larynx.	4,5	1,5	3,0
20.6.5.	Upper respiratory foreign bodies	1,5	1,5	-
20.7.	Oncology	12.0	3,0	9,0
20.7.1.	Breast and lung cancers	6,0	1,5	4,5
20.7.2.	Esophageal and gastric cancers	6,0	1,5	4,5
21.	Geriatrics	1,5	1,5	-
21.1.1.	Peculiarities of the diseases in aging and elderly people	1,5	1,5	-
22.	Dentistry	1,5	1.5	-
22.1.1.	Common diseases of oral cavity. Hygiene of oral cavity	1,5	1.5	-
	Total:	460,5	196,5	264

Phase 2

427. This curriculum is prepared for the second phase of FGP training. The goal of training is strengthening of knowledge and acquisition of practical skills. Training of FGPs will be carried out through the short-term site visits, practical classes and seminars.

428. Curriculum includes following modules:

1. Healthy lifestyle – 24 study hours (3 days).
2. Family planning. Reproductive health – 24 study hours (3 days).
3. Pelvic inflammatory diseases. Antenatal and postnatal care for women – 16 hours. (2 days).
4. ENT diseases in children and adults – 16 study hours (2 days).
5. Common gastrointestinal diseases – 16 study hours (2 days).
6. Arterial hypertension. CHD and ECG – 16 study hours (2 days).
7. Genitourinary infections in children and adults – 8 study hours (1 day).
8. Tuberculosis – 8 hours (1 day).
9. Dermatovenerological diseases and AIDS – 8 study hours (1 day).
10. Mental health and behavioral disorders – 16 study hours (2 days).
11. Rational drug use – 24 study hours (3 days).
12. Family physician skills needed for the use of medical equipment – 8 study hours (1 day).
13. IMCI – 64 study hours (8 days).
14. Management and financing in FM – 8 study hours (1 day).

Total: 256 hours (32 days).

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