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TECHNICAL REPORT:

# **First Phase of the Issyk-Kul Oblast Demonstration Site: Building the Health Reform Foundation in Kyrgyzstan**

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**October 1999  
Issyk-Kul Oblast, Kyrgyzstan**



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## **I. Abstract**

Issyk-Kul Oblast has been a ZdravReform demonstration site and government health reform pilot site since late 1994. While reforms are currently in the second stage of development, which includes strengthening of initial reforms and a roll-out of reforms from Issyk-Kul to other oblasts at the national level, this report looks at the precise measures and timetable adopted to achieve the reforms in the initial period (late 1994 to late 1996) in order to better understand the context for the second stage.

The report concentrates on the concept, design, transitional stages, and ultimately implementation of reforms in four main areas of the ZdravReform health reform model: health delivery system restructuring and strengthening of primary health care, population involvement, new provider payment systems, and new management information systems. In particular, the reforms in Issyk-Kul Oblast indicated to ZdravReform the necessity of having a single payer in the health system in order to avoid duplication, confusion and conflict.

## II. Executive Summary

Issyk-Kul Oblast has been a ZdravReform demonstration site and government health reform pilot site since late 1994. While reforms are currently in the second stage of development, which includes strengthening of initial reforms and a roll-out of reforms from Issyk-Kul to other oblasts at the national level, this report looks at the precise measures and timetable adopted to achieve the reforms in the initial period (late 1994 to late 1996) in order to better understand the context for the second stage.

**Health Delivery System Restructuring and Strengthening of Primary Care:** A key element within the reforms is the reorganization of service delivery from large, specialty-dominated polyclinics and hospitals to the newly developed primary care structure. In the initial stages 81 FGPs were formed in Issyk-Kul Oblast with doctors receiving clinical training in family practice. In addition rural and urban Family Group Practice Associations were established to support FGPs. The hospital and outpatient sectors were also rationalized which led to the closure of several facilities.

**Population Involvement:** Involvement of the population was encouraged through open enrollment and free choice of FGP. By 1996, approximately 80 percent of the population had taken part in open enrollment. The rationale for increasing population involvement is to empower consumers so that as informed actors they hold providers accountable and thus help to improve the efficiency and quality of the system from within. To implement these reforms ZdravReform developed a local marketing group to conduct public awareness, consumer choice, and enrollment campaigns. The enrollment campaign was initially carried out on a test site and it was found that further cooperation between primary care physicians and the population was necessary. Once enrollment had taken place, the marketing teams shifted their focus to health promotion using various media and covering a number of issues posing risks to the health of the population.

**New Provider Payment Systems:** The aim of new provider payment systems is to introduce competition among health providers by moving from chapter budget financing to a system that responds to services provided. As an important part of the payment system, and on the basis of reforms in Issyk-Kul, ZdravReform concluded that a single-payer is the appropriate institutional structure for the health sector. In Kyrgyzstan the Health Insurance Fund is a separate legal entity under the Ministry of Health, which allows the benefits of the Fund to be retained while containing the confusion and technical problems inherent with two public health purchasers. While this institutional structure was not actually implemented until 1998, the experience in Issyk-Kul from 1994 through 1996 was critical in forming the argument for a single provider.

Implementation of the system followed a five-phase transition schedule from the paper stage through to full implementation. The Issyk-Kul Oblast demonstration led to the development of a number of provider payment system products which have been rolled out throughout Kyrgyzstan and Central Asia, including a case-based hospital payment system, methodology for outpatient systems, cost accounting methodology facilitating the calculation of payment rates, a hospital payment billing and information system, and the population database required for FGP capitated rate payment.

**New Management Information Systems:** To support FGPs as independent business entities, new management, financial and clinical information systems have been developed for FGPs, opening up a new position within the FGP of practice manager to provide the financial and management expertise needed to adapt to the new provider payment systems. In addition ZdravReform has focused activities on quality assurance to mitigate any potentially perverse incentives in the new provider payment system and to encourage high quality care.

Overall the foundation for health reform established in Issyk-Kul between 1994 and 1996 was deemed highly successful. It also highlighted the importance of maintaining a pilot site providing visible leadership when rolling out reforms to other oblasts.

### **III. Introduction**

The purpose of this paper is to illustrate the early development, or first phase, of the Issyk-Kul Oblast demonstration by summarizing program activities from late 1994 through late 1996. This timeframe is important because it has shaped the nature of the health reforms. Although the Issyk-Kul Oblast demonstration has developed significantly over the last two years, and is presently still maturing, current outcomes are still dependent on the foundations built from late 1994 to late 1996. Beginning in late 1996 and early 1997, the Kyrgyzstan health reform strategy moved into the second phase by shifting to a two-pronged approach: firstly by continuing to maintain Issyk-Kul Oblast as the Kyrgyz leader and secondly by initiating the roll-out of the Issyk-Kul health reform model to other oblasts at the national level, in collaboration with the World Bank and other donors. It is important to continue to widen and deepen the health reforms in Issyk-Kul in order to strengthen sustainability and provide a visible example for the rest of the country. In order to continue to strengthen and provide context for ongoing health reform it is important to understand and document the dynamics and steps that were involved in the first phase, or the early development.

### **IV. Issyk-Kul Oblast Demonstration Strategy**

After the collapse of the Soviet Union, a principal concern within the health sector in Kyrgyzstan was how to generate additional resources that were independent of the state budget. A Health Insurance Law passed in July 1992 introduced a new payroll tax providing for diversification of revenue sources, making financing of health care no longer solely reliant on general government revenues. A national Health Insurance Fund (HIF) was also created with affiliates established in each oblast.

Passage of the Health Insurance Law provided the impetus to begin reform of the health care financing and service delivery systems. It also created the opportunity to introduce incentive-based payment methods and to shift the health delivery system's emphasis to primary care. However, for various reasons including the economic crisis and lack of human resource capabilities, implementation of the Health Insurance Law was delayed. In addition, there were problems with the nature and structure of the Health Insurance Law. Ambiguity of legislative design was particularly true in areas related to payment methods and quality assurance.

As ZdravReform began to implement health reform in 1994, the initial principal strategy was to work intensively in selected demonstration oblasts in order to comprehensively restructure the health delivery system and health financing mechanisms. This strategy was consistent with the desires of the Government of Kyrgyzstan to test the new Health Insurance Law in a pilot area. Issyk-Kul Oblast showed promising potential as a demonstration site and in early 1994, two technical assistance teams who traveled to Issyk-Kul under the Health Finance and Sustainability Project (HFS) were met by progressive health sector leaders who had already undertaken a number of primary care reforms.

In mid-1994, the Ministry of Health of Kyrgyzstan designated Issyk-Kul Oblast as a pilot site and requested technical assistance and training from ZdravReform in implementing reforms in the new pilot site. In response, ZdravReform designated Issyk-Kul Oblast (initially including the city of Karakol and the rural rayons of Dzhety-Oguz, Ak-Suu, and Tyup) as a demonstration site. In late 1994, ZdravReform developed initial demonstration workplans and established an office in the oblast capital of Karakol. In mid 1995, a resident advisor was deployed to Issyk-Kul Oblast and in May 1996; the demonstration was expanded to include all of Issyk-Kul Oblast.

The basic ZdravReform health reform model was developed and implemented in Issyk-Kul Oblast. It consists of four main components: health delivery system restructuring and strengthening of primary health care; population involvement; new provider payment systems; and new management information systems. The legal and policy framework and public awareness are elements of each of these components. The remainder of this report summarizes the activities undertaken to implement each of these four

components of the health reform model during the development of the Issyk-Kul Oblast demonstration site from late 1994 to late 1996.

### **A. Restructuring Service Delivery and Strengthening Primary Health Care**

Kyrgyzstan is currently experiencing a crisis in funding the health sector. The legacy of the Soviet system and the turbulent transition to a market-based economy has had dramatic consequences for the health sector in Central Asia. Even before the break-up of the Soviet Union, the percentage of the GDP devoted to health was significantly less than in other industrialized countries. The situation has significantly deteriorated since independence. Resources available to maintain the health care system have declined steadily, with health care expenditures as a percentage of GDP declining from about six percent in the late 1980s to less than three percent in 1998. In addition, GDP has continued to fall over that period, resulting in a significant reduction of real per capita health expenditure.

The declining health sector resource base cannot sustain the current service infrastructure. Because facilities have historically received their funding based on a combination of capacity and utilization rates, there has been an incentive to maintain large, inefficiently utilized physical structures and medical staff, high hospital admission rates, long hospital stays, and excess bed capacity.

One of the most profound inefficiencies in the health care system has been the imbalance between the hospital and primary care sectors with hospitals consuming more than 70 percent of the health sector budget. Financial and human resources are concentrated in the hospital sector. Primary care physicians are poorly paid and lack proper equipment and supplies, encouraging high referral rates to specialists and more expensive inpatient facilities. The inadequate financing and under utilization of the primary care sector is particularly acute in rural areas. Despite a well developed network of primary care facilities, continued lack of financing and overemphasis on rural hospitals has led to the deterioration of the primary care sector.

Formerly, the organization and administration of service delivery was also heavily biased toward centralized command and control. Health providers did not have management autonomy to allocate their resources effectively. Clinical and management decisions were not based on the provision of high quality, low cost health services to the population or health outcomes, but rather on clinical and financial norms.

The health systems in the New Independent States (NIS) can be likened to an inverted pyramid: most of the resources go to the hospital sector and to polyclinics, to support massive levels of brick and mortar and employment of too many physicians, with only limited funding available to the primary care sector. Massive and underutilized buildings housing an oversupply of physicians could be replaced by smaller group or solo practices providing outpatient care.

There are also clinical obstacles to the development of the primary care sector. Training of primary care physicians, by Western standards, is inadequate. Subsequently, conditions that should be effectively treated in the primary care sector are treated in the hospital, or by specialists at polyclinics. For fear of reprisal or alienation, physicians strictly follow prikazes, or legal mandates for treatment and referral set at the national level.

During Perestroika, awareness developed that the health delivery system was overly dominated by hospitals, and that the polyclinic system was too specialized. Under the New Economic Mechanism, a reform movement initiated throughout the Soviet Union in 1989, there were attempts to remedy these problems by creating primary care group practices. However, the implementation of these reforms was flawed in several ways. Physicians were assigned to staff these practices involuntarily, and the method for reimbursing the groups was not significantly changed. In addition, the groups were not retrained, nor did they receive needed equipment to provide appropriate care and thus reduce referrals. Finally, patients had no choice of provider.

A key element of the reforms in Issyk-Kul Oblast is the reorganization of service delivery from large, specialty-dominated polyclinics and hospitals to a newly developed primary care structure consisting of Family Group Practices (FGPs). In Issyk-Kul Oblast, 81 FGPs have been formed; enough to provide all primary care services to the entire population of Issyk-Kul Oblast. The typical FGP consists of an internist, an obstetrician/gynecologist, a pediatrician, two nurses, and a practice manager. FGP physicians have received training in the principles of family practice and on-the-job practical training from local specialists and US family practitioners. Rural and urban Family Group Practice Associations have been formed to support the formation of FGPs in the short-term, and provide advocacy and services to member of FGP s in a more decentralized, market oriented system in the long term.

The new organization of primary care is closely linked to other components of the health reform model. The population becomes involved in decisions about their health care through free choice of FGP and enrollment campaigns. New capitated rate provider payment systems change the financial incentives faced by FGPs and reward those FGPs that attract more of the population through enrollment. To support FGPs as independent business entities, new financial and clinical information systems have been developed for FGPs. In addition, a new post of practice manager has been established. Practice managers have been trained and are working with FGPs to provide the financial and management expertise necessary to adapt to new provider payment systems.

In summary, in Issyk-Kul Oblast, establishing FGPs as an alternative to the inefficient polyclinic system improves the quality and continuity of primary care. Together, the formation of FGPs, the enrollment of the population, and the financial incentives provided by new provider payment mechanisms are beginning to shift resources from less cost-effective hospital care to more cost-effective primary health care.

#### **Restructuring health service delivery and strengthening primary health care activities from late 1994 to late 1996:**

- 10/94: First four FGPs formed in Karakol City by OHD.
- 4/95: Initial clinical and management assessment of primary care sector completed; technical assistance and training plan developed.
- 6/95: Agreement reached with local authorities on 1) establishing FGPs as independent entities and 2) introducing patient choice of primary care provider.
- Sixteen FGPs formed in Karakol City
- 6/95: NGO Family Group Practice Association formed with 35 physicians from the FGPs; (official registration completed 10/95.)
- 7/95: Preliminary design of FGP clinical and financial management systems completed.
- 7/95: Mercy Corps approves grant of \$15,000 to procure needed clinical equipment for the 16 FGPs in Karakol City.
- 10/95: FGPs begin completing clinical information form; database created and entering of form started.
- 11/95: USAID approves ZdravReform grant of \$24,500 to Family Group Practice Association for procurement of basic clinic equipment and minor renovations for 16 FGPs.
- 11/95: Preliminary plan and design completed for a revolving drug fund for FGPs, including an essential drug list.
- 12/95: First FGP training course on family practice/clinical refresher training completed for 28 physicians.

- 2/96: National Institute for Postgraduate Medical Training (Bishkek) officially recognizes the family practice/clinical refresher training program and issues completion certificates.
- 3/96: FGP Clinical Information System refined; baseline referral study completed.
- 3/96: Comprehensive assessment of all FGPs carried out to update information on staffing, location, equipment inventory, training status.
- 3/96: Federal Ministry of Finance transferred 1.34 million som for FGP salaries and operating costs.
- 3/96: OHD decides to expand FGP development into three rayons outside the original pilot area; oblast target for full coverage is 81 FGPs.
- 4/96: Delivery of FGP clinic equipment and renovations completed for existing FGPs.
- 4/96: 12 local FGP Managers hired (of 60 applicants) and training program conducted, including computer training.
- 4/96: To date, a total of 24 FGPs have been established and are functioning in Issyk-Kul Oblast.
- 5/96: Plans are developed to establish an additional 57 FGPs in the Issyk-Kul Oblast, bringing the total number of FGPs in Issyk-Kul to 81. The planned number of FGPs is sufficient to cover the primary care needs of the entire oblast population of 396,150.
- 5/96: FGP Financial Management and budgeting system developed and FGPs begin implementation.
- 5/96: Dr. Idar Rommen, a U.S. family practice physician, began a one and a half year consultancy to conduct both theoretical and practical family medicine training for FGP physicians at the Family Medicine Center of Excellence in Karakol.
- 6/96: New FGPs were established in Cholpanata, Balakchi, Ton, and rural areas of Dzhety- Oguz. IDS staff and the Deputy Head of the Oblast Health Department met with 108 physicians to respond to questions about the structure and financing of FGPs.
- 6/96: A second cycle of family practice/clinical refresher training was conducted. The course was designed to upgrade clinical skills and cross-train FP physicians so that they can function more like family physicians.
- 6/96: An analysis of sample FGP patient records was completed to 1) obtain baseline rates for referrals, patient loads, lab tests, procedures and 2) to identify areas needing improvement in the patient record form and recording practice of FGP physicians.
- 7/96: A second group of practice managers was hired and trained; they managed the ongoing enrollment campaigns.
- 12/96: The FGP formation process was completed for an additional 57 FGPs bringing the actual number of new FGPs formed in Issyk-Kul Oblast to 81.

## **B. Population Involvement**

The second major component of the health reform model is involving the population in decisions about their health care. The rationale for increasing population involvement is four-fold:

- Informed consumers are more likely to become active consumers who hold providers accountable and thus play a role in improving the quality and efficiency of health care;

- Introduction of new population rights including free choice of primary care provider is closely tied to the restructuring of the primary health care system;
- In addition to new rights, the population also has new responsibilities including being responsible for their own health status and healthier lifestyles; and,
- Increased power in decision making about health care can contribute to the desire for more democratic participation in other sectors of the economy.

The introduction of choice is integral to the reorganization of the primary care system. Consumers must become actively involved in their health care. One way to involve consumers more is to enable them to make a choice of health providers. In Kyrgyzstan, this is both a symbolic step away from the former system in which people were assigned to providers based on catchment areas (place of residence), and a real mechanism for consumers to begin to hold providers accountable for the care they deliver.

In Issyk-Kul Oblast, public awareness and marketing campaigns have resulted in approximately 400,000 people, or more than 85 percent of the population of Issyk-Kul, exercising their right to free choice of a primary care provider by signing a form enrolling their family in an FGP.

To implement these campaigns, ZdravReform developed a local marketing group to conduct public awareness, consumer choice, and enrollment campaigns. The marketing group, beginning in July 1995, undertook a staged process of educational and promotional activities including:

1. Meeting with the Family Group Practice Association to establish FGP image and logo;
2. Designing and testing campaign messages, which were distributed through information sheets and brochures;
3. Producing and distributing promotional items including pins, pens, t-shirts, and plastic bags.
4. Participating in health promotion activities, such as distributing coloring books on FGPs at Immunization Day, and information about AIDS prevention for the Center to Fight AIDS;
5. Working with the mass media (newspaper, television, and radio);
6. Disseminating information about campaign goals through enterprises, schools, and public fora;
7. Disseminating campaign messages through an information booth at the main market in Karakol and through a door-to-door campaign in Washod and Kaska-Su (areas within Karakol);
8. Posting printed materials in shop windows and at pharmacies;
9. Placing FGP advertisements on buses, and around Karakol;
10. Designing and replacing a monthly information bulletin board at the Central Polyclinic;
11. Holding 'drawing and writing contests on medical themes' at elementary schools following teacher presentations about FGPs;
12. Conducting seminars with physicians and volunteers to prepare them to participate in the enrollment campaign;
13. Planning enrollment period activities.

In January 1996, the marketing team conducted a pilot enrollment campaign in Dzhety-Oguz Rayon. The pilot campaign was targeted at the population of Kaska-Suu, a village in Dzhety-Oguz Rayon with access to four FGPs. The pilot campaign enrolled 72 percent of the target population and enabled the marketing team to test the impact of their activities and better plan for the next scheduled population enrollment in

Karakol City and Tyup Rayon. The pilot campaign demonstrated the necessity of working more closely with physicians on educating the population, and of involving the community. From February to May, FGP physicians actively conducted public outreach activities, and the team planned a series of community-based events for the enrollment period in Karakol City and Tyup rayon. Results from nearly 51 focus groups helped the team plan events and enrollment site locations, which would be accepted by the population.

Newly hired FGP practice managers were central in campaign implementation and operational aspects of the enrollment process. In March, the marketing group trained the practice managers to participate in the campaign. Managers then held meetings in areas around Karakol City, at enterprises, and schools and assisted in conducting focus groups.

Open enrollment in Issyk-Kul Oblast was launched May 20-25, 1996 in Karakol City and Tyup Rayon. During the enrollment period, people could sign up for the FGPs of their choice at eight enrollment sites around Karakol City and four sites in Tyup rayon. At the enrollment sites, which were open to the public from 7am to 5pm, there were sporting events including karate demonstrations and volleyball and basketball competitions, and concerts by local musicians and folk song and dance groups. In addition, FGP managers organized sales of refreshments and reported on each day's enrollment figures. Turnout and enrollment in FGPs was much higher than expected with about 80 percent of the population in the area enrolling.

Open enrollment then continued throughout the summer and fall of 1996 with enrollment occurring in the remaining one city and four rayons in Issyk-Kul Oblast. By the end of 1996, approximately 80 percent of the population of Issyk-Kul oblast had enrolled in an FGP during an open enrollment period. Over the next year an additional five percent enrolled administratively, for example, if they were not enrolled, when they visited an FGP they were automatically enrolled. By early 1998, approximately 85 percent of the population of Issyk-Kul oblast was enrolled in an FGP.

After the enrollment campaigns were completed, the marketing team shifted their focus to health promotion. Over the past two years, continuous information on the on-going health reforms and health promotion has been provided to the population using a variety of mediums including TV, radio, newspapers, information brochures, and meetings in schools and workplaces. Campaign topics have included ARI/CDD, reproductive health, TB, STIs, Hepatitis, and a number of health risk factors.

Milestones in population involvement and open enrollment in Issyk-Kul Oblast through 1996 include:

- 12/95: Phase I of FGP marketing campaign completed, including public awareness program through local media, focus groups, distribution of promotional and health education materials.
- 2/96: Week-long test FGP enrollment campaign completed in Kaska-Suu Village in Dzhety-Oguz Rayon with 72 percent of families enrolled in one of four FGPs in the village.
- 5/96: Open enrollment for Karakol City and Tyup Rayon was launched May 20-25, and nearly 80 percent of the targeted population enrolled in newly formed FGPs. After the launch, 107,156 residents, or 27 percent of the total eligible population in Issyk-Kul Oblast, had voluntarily enrolled in FGPs.
- 6/96: Ongoing campaigns are planned to cover the entire oblast population by the end of summer 1996.
- 7/96: A plan was developed and implemented to begin roll-out of the marketing campaign and enrollment processes to Zhezkazgan Oblast, Kazakhstan.
- 12/96: Open enrollment campaigns were held throughout the remainder of Issyk-Kul Oblast and approximately 85 percent of the population had voluntarily enrolled in an FGP.

### C. New Provider Payment Systems

The allocation of health resources in Central Asia has followed the traditional Soviet chapter budgeting process, allocating health funds across facilities by input measures, such as the number of beds, rather than by the quantity and quality of services delivered. The budgets were disbursed by budget chapters according to strict norms. Since it was required that budgets were spent according to chapter allocations, facilities could not use their resources most cost-effectively. The objective of new provider payment systems is to introduce competition among health providers by moving from centrally planned budgets to payment for services provided, and allow health providers more management autonomy and greater control over the utilization of their resources.

New case-based hospital payment systems allow hospitals to compete fairly because stable prices are paid for well-defined units of output. Once these systems are implemented, facilities will be able to plan their services, increasing the capacity of efficient departments and downsizing or closing departments with average costs higher than the payment levels. Outpatient payment reforms have the dual goals of introducing incentives to increase the productivity of primary care providers and reducing inappropriate referrals to specialists and hospitals. The payment reforms also support the restructuring of outpatient care to more family-oriented service delivery, with a reduced, but more independent, role for specialists.

The Health Insurance Fund was seen as a new entity, a change agent capable of changing the funds flow in the health sector and implementing new provider payment systems. While this has generally been true, it is also true that this opportunity has brought new challenges. One health purchaser: the Ministry of Health (together with the Ministry of Finance), had to cede some financial control and power to another health purchaser: the Health Insurance Fund. The conflict between the MOH and the HIF concerning health sector institutional structure, roles, and relationships has been one of the defining events of health reform in Central Asia. Experience gained in the Issyk-Kul demonstration site concerning the institutional structure and funds flow of the health sector contributed to the development of a position about the most appropriate institutional structure for the Central Asian health sector. ZdravReform believes that a single-payer is the appropriate institutional structure for the health sector and lessons learned in Issyk-Kul Oblast have consolidated this position.

The current institutional structure of the health sector in Kyrgyzstan with the HIF as a separate juridical entity under the MOH allows the benefits of the HIF to be retained while containing the conflict, confusion, technical problems, operational problems, and increase in administrative costs inherent with two public health purchasers. The technical advantage of the HIF is that it can pool funds and distribute funds without chapters: the two major pre-conditions for the successful implementation of new provider payment systems. While this health sector institutional structure was not established until late 1998, the debate was framed by the implementation experience in Issyk-Kul from late 1994 to late 1996.

The Issyk-Kul Oblast demonstration allowed the development of many provider payment system products, which have been rolled out throughout Kyrgyzstan and Central Asia. These products include a case-based hospital payment system, methodology for outpatient payment systems, cost accounting methodology facilitating the calculation of payment rates, hospital payment billing and information system, FGP clinical and financial information system, and the population database required for FGP capitated rate payment.

The first step in the implementation of new provider payment systems in Issyk-Kul Oblast was initial rationalization of health facilities in order to begin the process of reducing excess capacity, thereby creating savings to invest in the transition. ZdravReform developed a rationalization plan that led to the closure of several facilities in Issyk-Kul Oblast. The most significant closure was the city hospital in Karakol. This closure was good, as duplication and excess capacity existed in Karakol City due to the existence of both city and oblast hospitals. The city hospital was underutilized and provided low quality care, while the oblast hospital provided higher quality care, and also had excess capacity and was easily able to serve patients formerly going to the city hospital.

The hospital payment system is an important aspect of the health reforms throughout Central Asia because of the disproportionate share of health sector resources allocated to hospitals, and the excess capacity in the hospital sector. In Issyk-Kul Oblast, ZdravReform assisted counterparts in adapting a case-based inpatient payment system using clinical and financial data from all facilities in the oblast. Available clinical data were used to create 55 clinical groups, based on diagnosis where possible, and hospital department where data were insufficient. Comprehensive cost data from cost accounting sheets were used to compute costs per bed day and cost per discharge within each department, and then costs were assigned to each clinical group in each facility. The costs were aggregated; relative weights were developed; and a simulation and impact analysis was performed for each hospital and each clinical department within the hospitals.

The new payment systems also promote more efficient health care delivery by shifting scarce health sector resources to a restructured primary care sector and changing the financial incentives faced by primary care practices. In Issyk-Kul Oblast, FGPs were paid a capitated rate based on the number of enrollees in their practices. ZdravReform calculated the capitated rates and developed the payment system including supporting information systems. In addition, outpatient specialist and ancillary service fee schedules were developed. Finally, to operate the new provider payment systems: ZdravReform developed forms; billing and other information systems; and operational procedures.

Implementation of new provider payment systems in Issyk-Kul Oblast followed a five phase planned transition schedule, moving from a "paper" stage, to testing of payment systems, to full implementation of new provider payment systems.

New provider payment system activities from late 1994 to late 1996:

- 1/95: Conceptual framework developed for new provider payment systems.
- 2/95: Five national policymakers participated in health insurance training course.
- 3/95: Database designed for entry and analysis of data required to construct a new hospital payment system; data elements defined, data collection forms developed and distributed to facilities in pilot area (Karakol, Dzhety-Oguz, Ak-Suu, Tyup).
- 4/95: Mercy Corps awarded \$15,000 grant for HIF Fund computer network and computers for the oblast and city hospitals.
- 5/95: Two MOH and MOF key staff members completed UK training program in general practitioner fundholding system.
- 5/95: Issyk-Kul HIF Fund officially inaugurated.
- 5/95: Four working groups organized, and HIF Fund policies and procedures drafted.
- 5/95: HIF Fund Board of Directors formed; (3/96 converted to Advisory Board.)
- 6/95: Legal and regulatory framework analyzed and presidential decree and government edict drafted to solidify legal basis for Issyk-Kul demonstration, allow pooling of funds, changing the budget system to enable new payment systems to be introduced, and requiring savings from rationalization to be re-invested in the health sector.
- 6/95: Preliminary capitation rate (83 som) calculated for the Issyk-Kul Oblast population.
- 7/95: Preliminary plan developed for facility rationalization.
- 8/95: Data collection and entry into hospital payment system database completed for pilot area facilities.

- 9/95: New head of OHD appointed; program briefing conducted.
- 9/95: Cost accounting required for development of hospital payment system completed for 20 hospitals in pilot area. A standard methodology, including standard cost allocation statistics, was developed and used which included the definition of seven administrative departments, 13 paraclinical departments, and 20 clinical departments.
- 10/95: HIF Fund integrated into OHD to avoid organizational conflict.
- 10/95: Case-based hospital payment system designed and developed for pilot area facilities. Analysis of clinical and cost data resulted in the designation of 55 clinical groups and relative weights. The analysis was based on cost accounting, analysis of clinical data (ICD-9 codes) to determine clinical groups, development of relative weights (relative costs of each clinical group scaled around 1.0), and simulation of impact of new hospital payment system on facilities.
- 10/95: Data collection initiated for implementation of hospital payment system in remainder of oblast (Balykchi, Issyk-kul, Ton).
- 11/95: Design of integrated computer systems completed for new provider payment systems, including: revenue collection database, population enrollment database, modules to calculate payment for hospital cases and capitated rates for FGP fundholders, clinical information and accounting systems for hospital and outpatient services and transactions. Types of documentation for cash transfers were defined.
- 11/95: Facility rationalization plan finalized and submitted to OHD.
- 11/95: World Bank agrees to support "roll-out" of provider payment reforms from Issyk-Kul to other oblasts. Program design developed and incorporated into loan agreement.
- 12/95: OHD reports 1.62 million savings as result of completed and planned facility closures, and reductions in personnel and beds.
- 12/95: Assessment completed of oblast banking and financial structures, cash flow process and relationship to banking and treasury systems determined.
- 1/96: National Government issued edict formalizing Issyk-Kul demonstration and providing many of the financing changes required for payment reform.
- 2/96: April 1 start-up date for HIF Fund confirmed by MOH/Bishkek; OHD agreed to concurrent start-up of new payment methods for FGPs and hospitals.
- 2/96: Social Insurance Fund tentatively agreed to transfer 1.2 percent of taxes to HIF Fund.
- 2/96: Clinical information system required to enter and pay hospital bills developed and installed in OHD/HIF.
- 2/96: Data collection and data entry completed for hospital payment system in Balykchi and two remaining rayons.
- 3/96: OHD/HIF Fund organizational chart and staff plan finalized and approved. New departments and positions created and personnel recruited for HIF deputy, inpatient and outpatient payment department, computer department, and quality assurance department. HIF staff position created in oblast Social Insurance Fund to coordinate 1.2 percent transfer.
- 3/96: Funds flow chart agreed to by the OHD, mandating the pooling of funds.

- 3/96: HIF Fund computer department begins entry of FGP enrollment data from Dzhety-Oguz rayon.
- 3/96: "Burden-of-disease" analysis carried out to facilitate OHD/HIF policymaking on health priorities and benefit package design.
- 3/96: Cost accounting completed for 12 hospitals in Balykchi and the two rayons.
- 3/96: World Bank loan signed with Ministry of Health, includes provider payment reform component to roll-out of payment reforms from Issyk-Kul to at least two other oblasts.
- 3/96: OHD/HIF hires three data entry staff for payment and computer systems departments. ZdravReform's newly hired local computer specialist begins training of HIF staff and continues development of information systems.
- 3/96: Training in new hospital payment system completed for 18 key pilot area hospital personnel (accountants, economists and deputy chief physicians).
- 3/96: "Paper" implementation of hospital payment system initiated in Karakol City and three rayons to test systems and refine before full implementation. Hospital bills designed and approved by OHD/HIF; printed and distributed to hospitals.
- 3/96: Process defined to update hospital base rate from 1994 to 1996, determine inpatient and outpatient payment pools, and calculate the capitated rate and a worksheet developed and submitted to OHD/HIF for completion.
- 4/96: Completed the incorporation of Balykchi and two rayons into hospital payment systems. Results demonstrated the relative stability of the hospital payment system.
- 4/96: Training in new hospital payment system completed for eight key hospitals personnel (accountants and economists) from Balykchi and two rayons.
- 4/96: Testing and refinements completed for OHD/HIF clinical information system to process hospital bills; final system installed and four staff trained.
- 4/96: 1,500 hospital billing forms submitted to OHD/HIF Fund under "paper" implementation.
- 4/96: Manual on methodology of outpatient fee schedule development completed and a four- person panel developed a draft fee schedule for 225 outpatient procedures for review by local experts. Data collection form for cost accounting information was developed and distributed to all 32 polyclinics in the oblast.
- 5/96: The Issyk-Kul Oblast Government issued a critically important decree, mandating the following: pooling of all health care funds from the rayons, city, and oblast; establishing an HIF Fund governing board to determine policy and provide oversight; officially forming the HIF Fund within the OHD; exempting the HIF Fund from restrictive Treasury regulations; stipulating that the Oblast Finance Department will pay health facilities' outstanding debts; transferring funds to the OHD/HIF Fund on a monthly basis. The decree also sets out a transition plan, including the operation of a fundholding system.
- 6/96: New outpatient fee schedules were completed. The fee schedules are part of the new incentive-based provider payment systems and will be used by the HIF Fund to reimburse outpatient specialty visits and diagnostic tests.

- 6/96: Outpatient billing forms completed and distributed to providers; preliminary version of outpatient clinical information system developed.
- 7/96: A five-phase plan for implementation of new payment systems developed.
- 7/96: Determination of the Phase II payment method for FGPs. FGPs with enrolled populations would receive a capitated rate for primary care services. FGPs without enrolled populations would continue to receive salaries. A bonus pool would be established for FGPs with enrolled populations. A spreadsheet and process for calculations were determined.
- 7/96: Calculation process for hospital payment rate determined; grouper program and hospital payment reporting system completed; 2000 hospital bills entered and preliminary analysis done

#### **D. New Management Information Systems**

Health management information systems are required to support the design, implementation, and evaluation of provider payment reforms. In the former Soviet Union, the MOH collected enormous amounts of information on health sector budgets, service utilization, and health status indicators. The data, however, were not compiled in a way that facilitated analysis, and it was difficult to link costs with utilization or health outcomes.

In Issyk-Kul Oblast, ZdravReform has developed health management information systems to support the implementation of new provider payment systems. The information systems provide data to develop and refine the new provider payment systems, create the infrastructure for the MOH and HIF to operate the new payment systems, and serve as management tools for facilities when the new payment systems are implemented. The information systems supporting new provider payment systems developed in Issyk-Kul Oblast are currently being used by the national HIF to operate new national provider payment systems.

In addition to new management information systems for health purchasers, health providers must also develop new clinical and financial information systems. Health providers must begin to function more as businesses. Hospitals must understand the costs of producing their services and develop plans to reduce costs and increase revenues. Primary care providers must be concerned about the health of their practices as well as that of their patients, and they must market themselves to the users and purchasers of health care. New provider level clinical and financial information systems increase the capability of health care facilities to adapt to the new financial incentives of the provider payment methods resulting in competition among health providers and more efficient use of available resources in the health sector.

In Issyk-Kul Oblast, ZdravReform has developed new clinical information systems for FGPs and hospitals, cost accounting methodologies, and new financial management systems. The new clinical information systems were adopted nationally through a December 1998 prekaz which cancelled old health statistics forms and replaced them with new forms, codes, and information systems developed by ZdravReform.

All providers will gradually move toward more autonomous management, and ZdravReform in Issyk-Kul Oblast has provided and will continue to provide management training. Key health sector personnel have been trained in concepts of finance, management, business planning, and human resources. In Issyk-Kul Oblast, a new level of health management professionals was created: FGP practice managers. They are vital to the sustainability of the new FGPs and the introduction of primary care practice managers has been extended from Issyk-Kul to other parts of Kyrgyzstan, Kazakhstan, and Uzbekistan.

To encourage high quality care and mitigate any perverse incentives in the new provider payment systems, ZdravReform has focused some activities on quality assurance in Issyk-Kul Oblast. Technical assistance was provided to the HIF quality department to develop admission and discharge criteria for ten conditions, which constitute over 50 percent of all hospital admissions. In addition, on-going work is targeted at improving the appropriateness of referrals in general and reducing patient self-referrals to

hospitals in particular. Finally, ZdravReform has provided training to encourage movement away from quality control toward principles of continuous quality improvement. More work is needed in this area to support providers as they begin to improve clinical practice and provider management.

A Licensing and Accreditation Program was developed in Issyk-Kul Oblast which was implemented nationally in 1997. To date, approximately 60 hospitals have been licensed and accredited. In 1998, Issyk-Kul Oblast contributed to the national level development of licensing and accreditation for FGPs, and all Issyk-Kul FGPs were accredited in 1999 and are currently being paid a capitated rate per enrollee by the national HIF.

The activities below from late 1994 to late 1996 are separated into management information systems and quality assurance.

## **1. Management Information Systems**

- 9/94: Facility cost accounting computer program and user manual developed; key oblast facility personnel trained in a two-day workshop.
- 12/94: Health Management training course conducted for 40 participants including pilot area economists and chief physicians and Federal MOH from Kazakhstan and Kyrgyzstan. Topics included financial accounting, management principles and business planning.
- 7/95: FGP clinical information system designed and draft FGP patient record and referral form developed and pre-tested in sample of FGPs.
- 9/95: FGP patient record and referral form refined and FGPs began to complete and submit forms for analysis.
- 3/96: FGP clinical information computer program designed to facilitate monitoring of FGP services, including patient referrals, and data entry begun.
- 5/96: Cost accounting training was completed in Issyk-Kul Oblast. All the chief economists of all major hospitals and polyclinics received cost accounting training.
- 7/96: USAID approves \$70,000 project information systems/computer procurement plan for the Issyk-Kul pilot area.

## **2. Quality Assurance Systems**

- 10/94: Initial assessment of quality assurance systems completed in pilot area.
- 4/95: Two-week workshop conducted for national committee on accreditation and licensing; four draft facility standards developed.
- 8/95: Follow-up ten day workshop conducted for 19 national committee and pilot area participants to finalize four original facility standards and draft ten new standards, and to develop an action plan for pilot testing the licensing and accreditation system in the pilot area.
- 8/95: Clinical quality improvement plan drafted and model hospital patient admission and discharge standards completed for testing in pilot area hospitals.
- 9/95: TQM training course conducted, five Kyrgyz facility managers participated.
- 11/95: Six of eight oblast hospital departments completed detailed criteria for 12 most common causes of admissions.

- 11/95: System designed to monitor facility utilization and quality of care as part of health insurance and new provider payment programs.
- 3/96: Burden-of-disease and cost-effectiveness study completed for Issyk-Kul oblast including analysis of clinical protocols for common causes of morbidity and mortality. Recommendations made for cost savings through outpatient management of selected high volume conditions.
- 3/96: Quality Assurance Department established in OHD and all five positions filled.
- 5-7/96: The ZdravReform-developed Quality Assurance Department finalized new treatment protocols. These protocols were designed to be used by FGPs in lieu of official MOH medical prekazes, which formerly required about 70 percent of patients to be referred to specialists
- 7/96: A U.S. family physician revised and consolidated data from the FGP referral forms.

## V. Summary

The Issyk-Kul Oblast demonstration site was very successful in building the foundation for health reform in Kyrgyzstan. The importance of the time period from late 1994 to late 1996 cannot be underestimated. While Issyk-Kul Oblast produced many accomplishments from 1997 to the present time and many results need to be solidified over the next few years for sustainability, the first two years of the demonstration were formative and in many ways defined the parameters determining subsequent results. Elements of the health reform foundation such as training health policy-makers and health professionals about reform and new management principles, restructuring the health delivery system, clinical training, educating the population, and establishing new information systems all take time as they involve building physical and human capacity. However, this foundation once established continues to pay dividends over the long-term.

A lesson learned from the Issyk-Kul Oblast demonstration is how vital the on-going maturation of the demonstration site is to the process of rolling-out the health reforms to other oblasts and the national level. It was important for Issyk-Kul to continue to stay a step ahead and serve as a visible leader and symbol to facilitate the introduction of health reform in other parts of the country. While in many ways, Bishkek City and Chui Oblast are catching up with the health reforms in Issyk-Kul, Issyk-Kul still serves as a model for the other, more rural oblasts in Kyrgyzstan. Therefore, it is important to continue to widen and deepen the health reforms in Issyk-Kul Oblast, not only to increase the probability of long-term sustainability, but also to enhance the development of the health reforms in other oblasts in Kyrgyzstan.