ZdravPlus Final Report 2000 - 2005

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ЗдравПлюс/ZdravPlus

ENSURING ACCESS TO QUALITY HEALTH CARE IN CENTRAL ASIA

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This is the final report of the USAID-funded ZdravPlus Project, implemented by Abt Associates, from June 6, 2000 to June 5, 2005 under Contract No.115-C-00-00-00011-00. The report describes the strategies and accomplishments of ZdravPlus over five years in providing technical assistance and training to help reform the complex and inter-connected health systems in the five Central Asian republics of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. ZdravPlus institutional partners included John Snow Inc. (JSI), Scientific Technology and Language Institute (STLI), Boston University, American International Health Alliance (AIHA), Socium Consult, Training Resources Group (TRG), and American Manufacturer's Export Group (AMEG).

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PROGRAM OVERVIEW

The ZdravPlus Project, implemented by Abt Associates, Inc., from 2000-2005, aimed to improve access to quality health care for the populations of the five Central Asian countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. Through four main components—stewardship, resource use, service delivery, and population and community health—ZdravPlus worked to address problems in the health care sector using a broad health systems approach. The Project combined a stable conceptual and technical model with a step-by-step implementation approach adapted to the environment in each country. The Project effectively collaborated with and built capacity of a broad range of local partners, including Government, Parliament, Ministries of Health and Finance, other policymakers, health care providers and managers, NGOs, and the population, to make changes that would improve health care for the population and increase the overall efficiency of the system in a manner that achieves long-term sustainability.

The four components of the program, and the USAID intermediate results associated with each, are outlined in the table below.

Stewardship	Improved legislative, regulatory, and policy framework
Resource Use	Improved use of health care resources for primary health care
Service Delivery	Improved quality of health care including infectious diseases and MCH
Population and Community Health	Select populations are better informed about personal health care rights and responsibilities

This report is a summary of the major activities and achievements of the ZdravPlus Project, and, as such, provides an overview of key changes that took place in the health care system during this period. Beginning with a brief overview of the situation on a country-by-country basis, the report then goes on to address each of the four components, highlighting important issues and achievements under each one. Because of the complex nature of health care reform and the integrated nature of the Project, each of the four component sections is organized slightly differently, with Stewardship and Resource Use organized by country and Service Delivery and Population/Community Health, which address broader themes, organized by implementation strategies, and using country-level examples to illustrate the activities.

In addition to country-level work which allowed the project to address the distinctive characteristics of each of the five Central Asian countries, ZdravPlus took advantage of the regional nature of the program to allow for sharing of experience and lessons learned throughout Central Asia and beyond. Regional work included six basic categories of activity, including: Project management activities; Joint participation activities such as trainings for representatives from various countries; Research and development of products, such as computer software to be adapted and implemented on the country-level; Activities in any component that involve participants from at least two countries; Policy Analysis, Monitoring and Evaluation, and Research Studies that are regional in nature or involve cross-country comparisons; and Information Dissemination, which aims to share experiences and lessons learned throughout the region and beyond, through presentations, published reports, website, and other means of electronic dissemination.

The section which follows portrays the broad health reform environment in each country at the start and end of the ZdravPlus Project. Specific project activities and achievements are then highlighted in the four component sections.

Kazakhstan

Kazakhstan has always been a volatile policy environment. Before the start of the ZdravPlus Project in 2000, health reform was impacted by mergers of oblasts, mergers of ministries, and movement of the capital. During the life of the ZdravPlus Project from 2000-2005, the health policy environment was particularly unstable with four changes in MOH leadership and significant shifts in the pendulum of health policy direction. A positive swing of the health policy direction pendulum occurred at the start of the ZdravPlus Project with the appointment of the former head of the Zhezkazgan Oblast Health Department (OHD) as the first head of the Committee on Health under the recently merged Ministry of Health, Education, and Culture. Before its merger into Karaganda Oblast, Zhezkazgan Oblast was the most developed oblast level comprehensive health reform pilot in Central Asia. When Dr. Rakhybekov was appointed as the new head of the Kazakhstan Committee on Health, his intent was to roll-out the Zhezkazgan pilot reforms nationally. Although a noble endeavor and possibly valid given his assessment of only a small window of opportunity, lack of a foundation for expansion of health reform meant that the country, the health sector, and the medical profession were not yet prepared for rapid and radical health reform. It created a backlash, particularly against primary health care (PHC).

From 2001-2004, the Committee on Health was re-established as the Ministry of Health (MOH) and leadership at the MOH changed twice. The health policy environment pendulum swung to the other side and the MOH was not reform oriented, particularly related to development and strengthening of PHC. However, some oblasts continued to progress on health reform and there was some positive dialogue at the national level, particularly related to health financing. Kazakhstan's governance was steadily improving during this time period, particularly at the middle or technocrat level. The President's Administration, Government, Ministry of Finance, and new Ministry of Economy and Budget Planning pressured the MOH to reform the health system. Combined with substantial improvements in Kazakhstan's economic situation and a commitment to significantly increase the budget for health, gradually the pendulum began to swing again and a more positive health policy environment emerged.

From 2002-2004, ZdravPlus engaged in intensive policy dialogue including all stakeholders with the intent of stabilizing the wide swings of the pendulum and embarking on a less chaotic, step-by-step approach to health policy development and reform implementation. The appointment of Minister of Health Dosayev in April 2004 contributed to this stabilization and empowered the MOH to complete development of a national health reform strategy. After about two years of broad policy dialogue and development, in September 2004 the President approved the State Health Care Development Program 2005-2010 and the corresponding implementation plan. It is a comprehensive and progressive strategy and implementation plan for health systems reform and development in Kazakhstan. ZdravPlus realigned its technical assistance to support the MOH in implementation of the State Health Care Development Program. Also, in 2004, a comprehensive legal framework for national implementation of health financing reform was developed and approved including pooling of funds at the oblast level and implementation of the new provider payment systems developed in the pilot oblasts.

Oblast level health reform implementation and general foundation building accelerated from 2000-2005, the life of the ZdravPlus Project. The dynamics of oblast level work match the country's environment and demography. Kazakhstan remains relatively decentralized and the oblasts have a lot of autonomy to implement health reform. Most of Central Asia has a ratio of urban to rural population of about one-third urban and two-thirds rural while Kazakhstan has the reverse ratio of about two-thirds urban and one-third rural. The rural areas are so vast with such low population density that health service investment is needed more than structural health system reform. The economy of Kazakhstan is growing rapidly and driving increases in the health budget, however, geographic distribution of oil and other natural resources creates significant inequity across oblasts. Therefore, much of the ZdravPlus national and oblast level technical assistance

was targeted at health financing to ensure that pooling and resource allocation mechanisms are in place to help ensure redistribution of funds and increased equity both across oblasts and within oblasts, particularly from urban to rural areas. Most of the health service delivery reform and population involvement work of ZdravPlus was targeted at the major cities within each oblast as this is where the majority of the health delivery system structure exists and the population resides.

ZdravPlus management constantly worked to evolve project strategies to optimally target technical assistance within the shifting general and unstable health policy environments in Kazakhstan. Throughout most of ZdravPlus, the oblast level comprehensive health reform pilot model and subsequent roll-out strategy used by other Central Asian countries was adapted into the following four-pronged implementation strategy:

1. National level – development of a national policy on health system reform and development, approval of a national legal framework for health financing, and approval of specific service delivery policies including PHC structure and new clinical practice guidelines.
2. Oblast level – implementation of health financing reforms including new health information systems.
3. City level – piloting and expanding service delivery and population involvement activities.
4. Grassroots level – continue developing a base of support for broader health reform and PHC including information dissemination and capacity building, primarily through ZdravPlus grantee the Kazakhstan Association of Family Physicians (KAFP).

Concerning specifics of oblast and city level health reform, at the start of ZdravPlus work was focused on expanding the Zhezkazgan City pilot into Karaganda Oblast following the merger of the two oblasts and collaborating with the World Bank Health Reform Project in the pilot oblasts of East Kazakhstan and Almaty. Following cancellation of the World Bank Health Reform Project in 2001, ZdravPlus continued work in East Kazakhstan and Almaty Oblasts. However, the pace of reform in these two oblasts slowed and the main focus was the long-standing pilot site of Semipalatinsk in East Kazakhstan Oblast (a very successful pilot site before the merger of Semipalatinsk Oblast into East Kazakhstan Oblast). Oblast level work and the status at the end of the ZdravPlus Project can be summarized as follows (there are 16 administrative units in Kazakhstan, 14 oblasts, and Astana and Almaty Cities):

- ***Zhezkazgan in Karaganda Oblast*** – A mature pilot site solidifying health financing reform, developing the next generation of health information systems, and serving as a primary pilot implementation site for a variety of service delivery and population involvement activities (see Service Delivery and Population and Community Health sections).
- ***Karaganda Oblast*** – The leading oblast level comprehensive reform pilot site in Kazakhstan, its closeness to the capital Astana City has facilitated incorporating its experience into national health reform policies. Karaganda Oblast is solidifying health financing reform, including pooling of funds, implementing new comprehensive health information systems, and serving as a primary pilot implementation site for a variety of service delivery and population involvement activities (see Service Delivery and Population and Community Health sections).
- ***Semipalatinsk*** – Health reform suffered in Semipalatinsk City after the merger of Semipalatinsk Oblast into East Kazakhstan Oblast. However, the Semipalatinsk Family Group Practice Association served as a model for NGO advocacy in working to preserve the restructured PHC sector. The PHC monitoring and evaluation system has been rolled-out from Karaganda to Semipalatinsk and the city remained as a pilot implementation site for service delivery and population involvement activities. By the end of ZdravPlus, Semipalatinsk was again an active health reform site.
- ***East Kazakhstan Oblast*** – Lack of progress or recognition of East Kazakhstan Oblast as a health reform pilot site was one of the reasons for the cancellation of the World Bank Health

Reform Pilot. However, over the last few years the oblast has gradually reinitiated health reform, for example, health information systems have been improved.

- ***Pavlodar Oblast*** – When the Law on Self-Governance required decentralization or pooling of funds at the rayon level in 2001, Pavlodar was the only oblast in Kazakhstan retaining the ability to pool funds at the oblast level. Under progressive leadership, it moved forward rapidly and became a leading oblast reform pilot with PHC restructuring, population enrollment, and health financing reform. The arrest of the Oblast Governor in 2002 severely hampered the health reforms and ZdravPlus was unable to continue work in Pavlodar Oblast, although the KAFP branch remains quite active. It is expected that the foundation built in Pavlodar will allow the oblast to quickly re-engage in the reform process during national implementation of the State Health Care Development Program.
- ***Kokshetau in Akmola Oblast*** – In 2000-2002 due to progressive City Health Department (CHD) leadership, Kokshetau rapidly restructured the PHC sector to create Family Group Practices (FGPs) including investing significant funds in renovating and equipping them. In partnership with ZdravPlus they provided clinical training and implemented service delivery improvements. However, a change in Akmola Oblast health sector leadership, coinciding with the national pendulum swinging to a difficult national health policy environment, halted continued PHC development. Over the last few years, Family Group Practices have become reenergized with the support of an active KAFP branch.
- ***Almaty*** – In addition to extensive policy dialogue with various national and city institutions, ZdravPlus provided technical assistance and operational support to Almaty in refining the Zhezkazgan and Karaganda population database for enrollment in PHC. This refined system has been implemented in Almaty and is being gradually connected to capitated rate payment.
- ***Astana*** – Astana City Health Department leadership has become more progressive over the last year and ZdravPlus is engaging in policy dialogue on PHC restructuring, health financing, health information systems, and improving the content of medical practice (evidence-based medicine and new clinical practice guidelines). The major ZdravPlus activity in Astana centered around a Global Development Alliance (GDA) which partnered the City Health Department, Exxon-Mobil, ZdravPlus, and KAFP in implementation of the World Health Organization's (WHO) Integrated Management of Childhood Illness (IMCI) strategy in city FGPs.
- ***Atyrau Oblast*** – At the start of ZdravPlus, United States Government policy was to initiate activities in Atyrau Oblast through the Atyrau Regional Initiative. USAID, ZdravPlus, Chevron, and the Atyrau OHD developed a GDA to implement a new hospital database and improve health information systems. This initiative was institutionalized and ZdravPlus did not continue work in Atyrau Oblast.
- ***West Kazakhstan*** – Although constrained by resources, ZdravPlus engaged in policy dialogue, installed health information systems, and provided limited clinical training in partnership with the progressive West Kazakhstan OHD. It is likely that West Kazakhstan will emerge as the leading oblast in the west as health financing and other reforms are implemented nationally.
- ***Other Oblasts*** – Other oblasts not initiating broad health system reforms are beginning to develop policies and implement various elements of the reforms as the national health policy environment stabilizes and they learn from the experiences in other oblasts. For example, Mangistau and Aktubinsk Oblasts independently initiated pooling of funds at the oblast level and want to move forward on health financing reform including new health information systems. In effect, the combination of a progressive national health policy framework and oblast level implementation is driving a process of gradual institutionalization of health reform in Kazakhstan.

In summary, by the end of the ZdravPlus Project the approved State Health Care Development Program provided a national health policy framework, a legal framework for national health financing reform existed, and many oblasts and cities were progressing on health finance, service

delivery, and population involvement activities including pilots. The challenge for the future is continuing the convergence of the national legal and policy framework and oblast implementation through full implementation of the State Health Care Development Program.

USAID Performance Monitoring Plan Results – Increased Use of PHC Services

ZdravPlus' Strategic Objective-level indicator measured the percentage of total outpatient visits provided in PHC practices (PHCPs). In Kazakhstan, comprehensive health sector reforms have been implemented in targeted sites, covering 41 percent of the population of 15 million. The percentage of total outpatient visits provided in PHCPs has increased from 7 percent in 2000 to 50 percent in 2004. The 2004 indicator is reasonably good, with some variation by oblast due to the inconsistency of MOH reporting and differing definitions of PHC, and data being more stable in ZdravPlus' mature sites. The percentage of visits provided by PHCPs has met or exceeded ZdravPlus targets each year; targets were revised correspondingly in 2001 to reflect the results that had already been achieved, with the 2004 indicator exceeding the target set in 2001 by 6 percent.

As the percentage increases, and stabilizes around 50 percent, it becomes harder to achieve significant increases without dramatic changes in health policy and delivery structure. Due to the difficult policy environment and initial backlash against PHC, Kazakhstan has not dramatically changed the structure of their health delivery system or their statistical reporting system and it remains difficult to separate PHC and outpatient specialty visits. Mandatory screening of school children and patients with chronic diseases by outpatient specialists continues to hamper increased use of PHCPs. Future increases in the indicator will depend on improvements in the health policy environment for PHC and restructuring of the delivery structure, especially in urban areas. The State Health Care Development Program passed in 2005 prioritizes strengthening PHC, creation of mixed polyclinics in urban areas, implementation of national health financing reforms including pooling of funds at the oblast level, and increased pace of service delivery improvements such as promotion of evidence-based medicine and implementation of new clinical practice guidelines, but will take time to have a significant impact on utilization of PHCPs. In addition, Kazakhstan's newly developed outpatient drug benefit is expected to lead to significant increases in utilization of PHC, as was seen in Kyrgyzstan.

Kyrgyzstan

The Kyrgyzstan health reforms are unmatched in their scope and results in the former Soviet Union (excepting the Baltic Republics). The large scope and comprehensiveness of health reform, using a broad health systems approach, has extended its impact well beyond the health sector and resulted in sweeping changes in the way the government delivers services to the population. ZdravPlus supported health reform leaders in driving the health system strengthening process, building capacity to develop and implement health policy and technical interventions using a step-by-step approach, and institutionalizing the health reforms.

At the beginning of ZdravPlus, health reforms strengthening PHC had been piloted in Issyk-Kul Oblast with technical assistance and support from the ZdravReform Project and rolled-out to additional oblasts with support from the World Bank. During ZdravPlus, the initial health reform model was enhanced through development and piloting of a single-payer health financing system and then rolled-out nationally under the Manas National Health Care Reform Program (1995-2005). Key health policies and health financing reforms were institutionalized at the national level within the Ministry of Health (MOH) and Mandatory Health Insurance Fund (MHIF). At the end of the ZdravPlus Project in 2005, despite limited financial resources in the health sector in Kyrgyzstan, an internationally-recognized health reform model had been developed and implemented that retained the population's access to health services provided by the State Guaranteed Benefits Package (SGBP).

The main characteristics of the Kyrgyz health model included increased focus on PHC and introduction of family medicine through creation of Family Group Practices (FGPs), a restructured health and hospital system that better corresponded to population health needs and financial resources, creation of a single payer system with introduction of incentive-based financing mechanisms, and decentralized management with enhanced administrative and financial autonomy of health organizations. Significant movement forward was achieved in improving quality of care, through the development of a national quality improvement policy, introduction of evidence-based medicine and development of clinical protocols and guidelines, and implementation of continuous quality improvement mechanisms in PHC facilities. The population's knowledge about their health was increased and people were allowed to choose their FGP.

Health reforms were implemented nationally – in all seven oblasts and in Bishkek and Osh Cities – and had touched all levels of the health sector providing individual health services from FGPs to outpatient specialists to inpatient care. While pilot programs around the world are often not rolled out, the Kyrgyz health reforms quickly and successfully built on and expanded their initial pilot efforts in Issyk-Kul, resulting in national implementation of the health reform model that has led to significant restructuring and efficiency increases in the hospital sector, a dramatic shift in resources to the PHC level, and early evidence of increased access and quality of care. Preparation for the next phase of health reform – called Manas Taalimi – is currently underway, consolidating the achievements of the Manas Program and designing interventions in next generation reforms, such as public health, medical education, and infectious disease vertical systems, while simultaneously increasing the capacity of the MOH to design, implement, and measure the impact of health reforms.

ZdravPlus' SO-level indicator measured the percentage of total outpatient visits provided in PHC practices (PHCPs). In Kyrgyzstan, comprehensive health sector reforms have been implemented throughout the country, covering 100 percent of the population of 5 million. As reforms were rolled out oblast by oblast, the percentage of total outpatient visits provided in PHCPs has increased from 16 percent in 2000 to 56 percent in 2004. In 2004, the percentage varied between oblasts from 44 percent in Bishkek City (where there are still a large number of outpatient specialists) to 81 percent in Batken Oblast with its rural and remote regions. The national

percentage met or exceeded ZdravPlus targets each year; targets were revised correspondingly in 2001 and again in 2004 to reflect the results that had already been achieved.

Since 2003, the percent of outpatient visits in PHCPs appears to be leveling off around 55 percent. This high level of utilization is due to continued efforts of FGPs to improve service delivery through ongoing training, implementation of new clinical practice guidelines, and introduction of quality improvement mechanisms. The outpatient drug benefit continues to contribute significantly to making PHC more attractive to the population as drugs, largely for chronic diseases and child health, are now available and subsidized at the PHC level. The rate probably will remain fairly stable at the national level in the near future, continuing to vary by oblast, until further restructuring and reorientation of outpatient narrow specialty care (at Family Medicine Centers) is undertaken.

Key Results of the «Manas» Program

Primary Health Care

- Improved access to PHC services
- Reduced referrals for hospitalization
- Expanded scope of services delivered by family doctor
- Improved management of chronic diseases at the PHC level

Restructuring

- Doubled share of health care expenditures to PHC
- Reduced 42 percent of the buildings and 35 percent of the floor space in the hospital sector
- Increased expenditures allocated to direct patient care expenses from 16 percent to 36 percent

Health Care Financing

- Improved equity of access to health care services
- Increased transparency in resource allocation and use
- Improved efficiency and quality of service provision
- Achieved remarkable administrative efficiency

Led by the WHO/DFID Health Policy Analysis Project (HPAP) in collaboration with the World Bank and ZdravPlus, an independent evaluation of the Manas Program also was conducted focusing on three areas of reform: PHC, restructuring, and health financing. The evaluation studies documented significant achievements in all three areas, discussed lessons learned during implementation, and made recommendations for continued improvements under Manas Taalimi. The evaluation studies are summarized below. Although health delivery system restructuring and health financing are evaluated in separate reports, the synergies between them have been critical to the health reforms.

Primary Health Care

Achievements in PHC reform have contributed to increased efficiency and improved quality of care. PHC reforms improved access to PHC services, reduced hospital referrals, and expanded the range of services delivered by family doctors and helped them to better manage chronic diseases. Access to PHC services improved through the SGBP that provides free PHC services to the entire population. Evaluation of visits and hospitalizations show improved equality in health services utilization demonstrating that the poor captured a greater share of public expenditures than before the reforms.

Analysis of referral patterns and unnecessary hospitalizations indicate improvements in the first contact and gate-keeping functions of FGPs as a result of the introduction of family medicine. This has significantly shifted health care provision from the secondary to primary level. Over 2001-2003, the number of hospital referrals among enrolled citizens decreased, partly due to the improved gate-keeping function of FGPs and their broader practice patterns. Increased volume and content of health services at primary level led to the reduction of referrals and unnecessary hospitalizations and consequently to increased efficiency and rationality of the health care system.

Clinical protocols were developed and introduced on the basis of evidence-based medicine from 2000. As a result, reductions in hospitalization were noted for monitored and primary care sensitive conditions such as hypertension, bronchial asthma, and ulcer. Similarly complications associated with these disease conditions also declined. Comparing the practice patterns of family doctors across the country, FGPs in Issyk-Kul oblast have the most expanded practice pattern and this is where the PHC reforms have the longest history and depth. FGPs in Issyk-Kul increasingly

take on functions of narrow specialists. They make independent decisions more frequently than their counterparts in Osh and Bishkek cities. The MHIF's Additional Drug Program (ADP) was introduced over the period 2000-2003 for outpatient care. Under the ADP, a specific proportion of drug costs are covered by MHIF resources. Qualifying drugs are sold in pharmacies working on a contractual basis with the MHIF. Drugs included in the ADP were selected based on PHC sensitive conditions. Price regulation and reimbursement allowed for an increase in access to these drugs and provided incentives to seek treatment at the PHC level.

Restructuring

In combination with the introduction of new financing methods, restructuring of service delivery achieved significant improvements in the efficiency of resource use and quality of health care delivery (availability of drugs, medical supplies and other conditions of hospital stay). In addition, restructuring allowed increasing the salaries of medical personnel contributing to a reduction in informal payment. Allocative efficiency of the health system improved as the share of health care expenditures devoted to primary health care doubled from 15 percent to 33 percent between 2001 and 2003. This allowed better funding of salaries, medicines, and supplies at the primary level. In addition, productivity indicators in the hospital sector significantly improved.

Between 2000 and 2003, 42 percent of the buildings and 35 percent of the floor space in the hospital sector was reduced in coordination with a major effort to reduce utility expenses through improved planning and control processes including improvements in insulation methods and techniques. Reduction in physical and human resource infrastructure allowed spending a greater share of resources on direct patient care such as drugs and medical supplies rather than on utility expenses, with the share of health expenditures allocated to direct patient care expenses increasing from 16 percent to 36 percent from 2001-03. At the same time, evaluation of the impact of restructuring found no evidence that downsizing created access barriers for the poor. However, greater attention has to be paid to reducing the financial burden of seeking care for the most disadvantaged part of the population.

Given fiscal constraints and severely declining public resources, failure to restructure the health system would have worsened access and health outcomes. Restructuring was successfully implemented in the Kyrgyz context because it was a component of a broader health system reform and not a stand-alone effort aimed at improving the efficiency of the health system. The savings from restructuring would have been even greater if they had been fully reinvested in the health sector and if local budgets had not reduced their contributions.

Health Financing

Changes in health care financing led to significant improvements in the performance of the health system and in the health care services people receive. Kyrgyz health financing reforms improved equity of access to health care services, increased transparency, improved efficiency and quality of service provision, and demonstrated remarkable administrative efficiency. Remaining challenges for Manas Taalimi include improvement in financial/risk protection by reducing the burden of direct health care payments on households which in turn requires providing sufficient resources from public funding for the health sector.

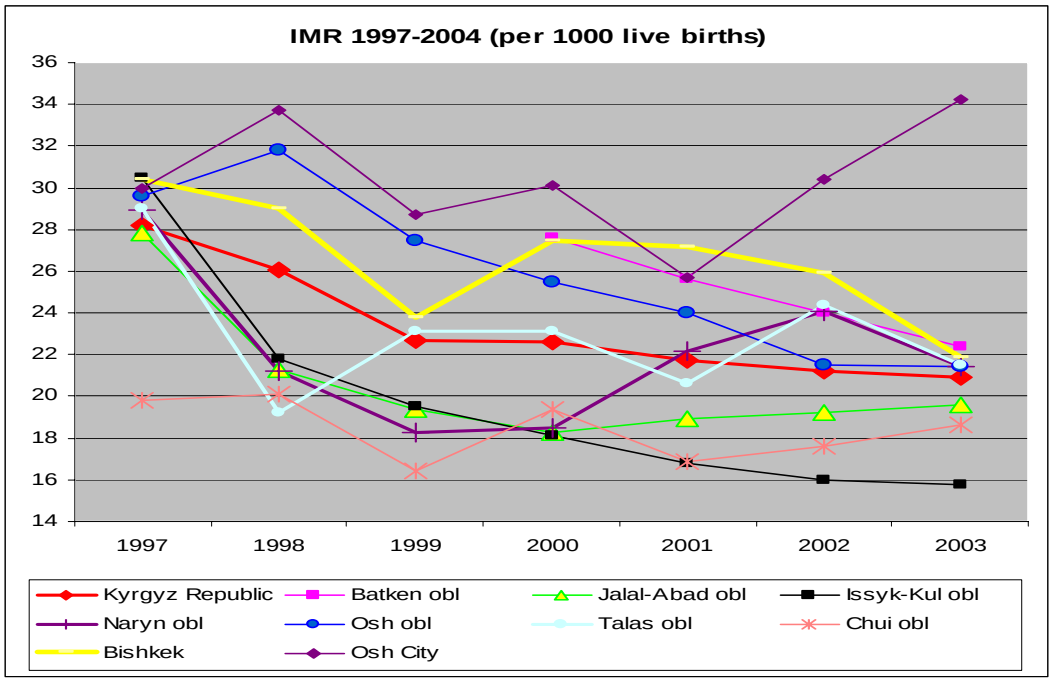
There are documented improvements in the efficiency and quality of the Kyrgyz health system. The new provider payment methods under the single-payer system triggered the tremendous downsizing that occurred in the hospital sector between 2000 and 2003 mentioned above. The large reallocation of expenditures to the primary level and to direct patient expenses would not have been possible without significantly downsizing the infrastructure of service delivery. The introduction of strategic purchasing has also led to improved quality of PHC, with tremendous benefits associated with the Additional Drug Program in terms of availability and affordability of drugs for primary care sensitive conditions also documented.

These achievements are due in large part to the adoption of "strategic purchasing" using output-based payment mechanisms, sophisticated incentives for referrals and exemptions, and regular monitoring of quality. The MHIF also has been able to fulfill its functions with remarkable efficiency, keeping administrative costs significantly lower than required by Kyrgyz law and lower than most social insurance-based health systems in Europe.

The single-payer system has improved the transparency of the health system for the population by creating a clear system of benefits and entitlements through the SGBP and the co-payment policy. A key objective of the health financing reforms was to begin to make the health system more transparent by clarifying entitlements to benefits and responsibilities. The evaluation study shows that over the period of 2000-03 informal payment reduced by 2 percent in the early reform oblasts of Issyk-Kul, Chui, Naryn, and Talas where the reforms have had a longer period to take effect. In contrast, informal payment increased by 73 percent in the late reform oblasts of Osh, Jalal-Abad, and Batken, and it grew by 24 percent in Bishkek during the same time period. The positive trends in the decline of informal payments in early reform oblasts suggest that consistent and full implementation of the single-payer reforms would lead to similar benefits in other parts of the country over time. Further reduction in informal payment is only possible by generating a stable and growing base of public resources for the health sector.

Health Impact

While no comprehensive analysis of the impact of Kyrgyz health reforms on people's health has been conducted and its difficult to attribute causation, indications from routine statistics and a number of special studies are beginning to show progress in decreasing mortality and improving people's health and there is correlation with timing of comprehensive health system reform. Analysis of health statistics on infant mortality from 1997-2004 shows progress in decreasing infant mortality throughout the country (prior to introduction of the internationally accepted live birth definition), with dramatic decreases in certain geographic regions such as Issyk-Kul Oblast where PHC reforms have been implemented the longest. These results are particularly impressive given the economic collapse and large increase in poverty that would naturally result in a deterioration of health indicators.



Source: World Bank, Human Development Sector Unit, Europe and Central Asia Region. Operationalizing the Health and Education MDGs in Central Asia: Kyrgyz Republic Health and Education Case Studies. Discussion Draft. June 23, 2005.

A long-term study was initiated in 1997 by the U.S. Centers for Disease Control and Prevention (CDC) to measure the mortality and years of potentially lost life indexes for the burden of disease calculation. The study compares statistical data from the MOH's Medical Information Center from 1999 to 2003. The data show a significant reduction in the years of potential life lost for the country. In particular, there was a significant (65%) reduction in gastrointestinal infection (diarrheal diseases) indicating that death among children under five was decreased three times. Equally impressive improvements in health occurred with lung diseases (35% reduction in years of potentially lost life), heart-related diseases (13% reduction), and tuberculosis (17% reduction). Many social, economic, and health system factors affect these indicators and are difficult to disaggregate. However, it can be assumed that the health reforms that have occurred in Kyrgyzstan since 1995 have contributed to a reduction in the years of potentially lost life, particularly for PHC sensitive conditions.

USAID Performance Monitoring Plan Results – Increased Use of PHC Services

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Since 2003, the percent of outpatient visits in PHCPs appears to be leveling off around 55 percent. This high level of utilization is due to continued efforts of Family Group Practices (FGPs) to improve service delivery through ongoing training, implementation of new clinical practice guidelines, and introduction of quality improvement mechanisms. The outpatient drug benefit continues to contribute significantly to making PHC more attractive to the population as drugs, largely for chronic diseases and child health, are now available and subsidized at the PHC level. The rate probably will remain fairly stable at the national level in the near future, continuing to vary by oblast, until further restructuring and reorientation of outpatient narrow specialty care (at Family Medicine Centers) is undertaken.

Tajikistan

At the start of ZdravPlus in 2000, Tajikistan had not yet begun reforming its health system. The country was still emerging from a devastating civil war and had a number of intractable problems including very low public funding of the health sector. Public funding is estimated to be about 20 percent of health expenditures while all other Central Asian countries have approximately 50 percent or greater public funding for health expenditures. This makes it very difficult to develop and implement a strategy to strengthen PHC, increase efficiency, and improve allocation of health resources. Health policymakers in Dushanbe were closely watching developments in Russia and other parts of Central Asia particularly Kyrgyzstan, and generally supported progressive health policies and health reform. However, very little implementation capacity existed outside of Dushanbe and it was hard to develop and implement activities. Geography was and still is a challenge as the administrative structure of the country makes it difficult to initiate pilots. Almost half the country's population is in Khatlon Oblast in the south, Gorno-Badakshan Autonomous Oblast (GBAO) contains about half the territory with very low population density, and the thirteen rayons of republican subordination (RRS) surrounding Dushanbe are not part of an oblast. Initially, it was not possible to implement a comprehensive oblast level health reform pilot model which had both initiated and triggered further health system reform in other Central Asian countries.

For the base period of the contract, ZdravPlus provided only limited technical assistance in Tajikistan, while in the option period it became a full country program. For the first couple of years, when USAID was still evacuated from Tajikistan and there was the further constraint of limited access due to travel restrictions, ZdravPlus worked with Tajik partners on a two-pronged implementation strategy. First, to affiliate with and use the asset of international doctors resident in Tajikistan to begin the process of introducing family medicine, generally following the Kyrgyzstan model. Although a number of political, policy, and operational issues arose surrounding family medicine, in general the process moved forward and by the end of ZdravPlus a national family medicine training center existed in Polyclinic #8 in Dushanbe, approximately 20 family medicine trainers had been trained under a collaboration between the ADB Project and ZdravPlus, and Tajikistan was positioned for broader introduction of family medicine to strengthen PHC.

The second aspect of the initial ZdravPlus strategy was to collaborate with the WHO-funded Somoni Team and the World Bank Health Reform Project on broad health policy dialogue and health financing. Although the roles and relationships between the MOH, Somoni Team, and World Bank Health Reform Project Implementation Unit were not always clear and it was difficult to move from policy dialogue to implementation, health policy development moved forward from 2000-2002. Pilot rayons were supported by both WHO (three pilot rayons) and the World Bank Health Reform Project (two pilot rayons) and ZdravPlus collaborated to the extent possible to support implementation of a variety of activities in these pilots.

The fairly narrow scope of the health reforms broadened significantly with the appointment of Minister Fuzilloev in January 2003 coinciding with direction from the President to accelerate health reform. Policy dialogue became broader and more participatory, health policy working groups were formed, and the geographic focus of the health reforms expanded. By the end of ZdravPlus, generally positive health policies were in place and health reform was moving forward, although many challenges remained, particularly how to initiate and evolve actual implementation of new health policies and reform.

USAID Performance Monitoring Plan Results – Increased Use of PHC Services

Regionally, ZdravPlus' Strategic Objective-level indicator measured the percentage of total outpatient visits provided in PHC practices (PHCPs). However in Tajikistan, while PHC continues to be developed on various levels – including training and retraining of PHC physicians and health workers, developing a guaranteed benefits package, per capita rate payment system, and rehabilitating some PHC facilities – there are not yet facilities that can be classified as "new PHC practices."

Turkmenistan

Turkmenistan has been a challenging environment to work in over the past five years. The government remains suspicious of foreign organizations and at the start of ZdravPlus did not allow any work in broad health care reform. Thus, ZdravPlus took a careful and measured approach to implementing activities in Turkmenistan. This was characterized by identifying opportunities to work in specific, finite areas while continually working with the Ministry of Health to build trust and relationships. ZdravPlus has had significant success with this strategy over the past five years. The project began with trainings for PHC level lab physicians, a need initially identified by the MOH, and was able to gradually move into physician IMCI training and population education in the early stages of work in Turkmenistan. By the end of the project, ZdravPlus had provided lab and IMCI trainings in all five velayats, expanded IMCI trainings to include nurses and pre-service education, implemented population education activities, and was able to provide input to the MOH as they begin to plan for health finance reform including considering health insurance. ZdravPlus now has a good working relationship with the MOH and is carefully and gradually expanding the scope of the health reforms as opportunities arise.

Uzbekistan

At the start of the ZdravPlus Project in 2000, Uzbekistan was still in the early stages of development and implementation of the first major step in their health system reforms, a rural PHC reform model. The World Bank Health I Project and ZdravPlus were collaborating closely and working with all local stakeholders in Uzbekistan to introduce this model – consisting of restructuring rural PHC to create new first-level primary health care practices called SVPs (Russian acronym for Selskii Vrachebnii Punkt or Rural Physician/Medical Point); renovating and equipping the SVPs; introducing general practice (comparable to family medicine in other countries), clinical training for SVP health professionals, and new quality improvement techniques; in conjunction with introducing a capitated rate provider payment system linked to improving health management and health information systems. The geographic scope of the comprehensive rural PHC reform model was intended to be three pilot rayons in three oblasts, Ferghana, Navoiy, and Sirdaryo. Ferghana Oblast was the lead pilot site where most of the interventions were initiated, but activities began fairly early in the ZdravPlus Project in Navoiy and Sirdaryo as well.

At the end of the ZdravPlus Project in May 2005, Uzbekistan had not only completed and endorsed the pilots but had rolled-out the reforms to all rayons in all three oblasts. Thus, the expectation of pilot implementation of a comprehensive rural PHC reform model in nine pilot rayons had become the reality of implementation in thirty-seven rayons encompassing all of Ferghana, Navoiy, and Sirdaryo Oblasts. In addition, roll-out was extended beyond the initial pilot oblasts to Karakalpakstan Autonomous Region and Khorezm Oblast. Over the last year or so of the Project, ZdravPlus collaborated closely with the World Bank and Asian Development Bank (ADB) on their joint project design, these two five-year projects are now effective and the excellent collaboration continues. The joint project design intended to create synergies between the bank projects with the World Bank continuing to focus on broad health system reforms and the ADB on improving the quality of health services for women and children.

Uzbekistan has a very measured and deliberate approach to health reform. The reforms benefited from this approach in that they moved forward, albeit at times slowly, without any major shifts in policy direction. At times it was clear that only focusing on one level of the health system, rural PHC, created some barriers to reform. Health financing and heath delivery system restructuring issues must be addressed throughout the entire health system in order to ensure the sustainability of strengthened rural PHC. For example, it is difficult to allocate additional resources to PHC as the reforms move from the pilot to the roll-out phase without changes in hospital financing and structure. The broad vision for the next phase of health reform in Uzbekistan is to extend the first phase of the reforms horizontally (national roll-out of the rural PHC reforms), while also expanding the reforms vertically by incorporating new levels of the system, namely urban PHC and a new hospital payment system

USAID Performance Monitoring Plan Results – Increased Use of PHC Services

ZdravPlus' Strategic Objective-level indicator measured the percentage of total outpatient visits provided in PHC practices (PHCPs). In Uzbekistan, comprehensive health sector reforms have been implemented in three full oblasts (Ferghana, Navoiy, and Sirdaryo), covering 18 percent of the population of 25 million. As reforms were rolled out rayon by rayon, the percentage of total outpatient visits provided in PHCPs increased from 5 percent in 2001 to 33 percent in 2004. The percentage decreased from 2003 to 2004 as reforms were expanded to include immature PHCPs, mainly in Navoiy Oblast. However, the percentage of PHCP visits in pilot oblasts met or exceeded ZdravPlus targets each year.

The rural PHC reform model which started with an initial, tentative foothold in only three rayons of Ferghana Oblast in 2000 has now expanded to three oblasts with 37 rayons covering approximately 2.7 million people in rural areas. The model consists of establishing new rural PHC

practices called SVPs, renovating and equipping them, implementing new finance and management systems (establish OHD as health purchaser, pool funds at oblast level, new per capita payment system, facility autonomy through creating own budgets and business plans, new finance managers, and new health information systems), general practice training, quality improvement techniques, and health promotion. Complete extension to three oblasts is critical as comprehensive health reforms need to occur at the oblast level and this provides the foundation for vertical expansion of the reforms to urban PHC and hospitals. In addition, national roll-out began with expansion to three rayons in Karakalpakstan Autonomous Region and Khorezm Oblast, a process that the Uzbek Government plans to continue until all rural residents in the country have increased access to better PHC services.

STEWARDSHIP

ZdravPlus had four main strategies under the Stewardship component to create a favorable policy environment for improving quality health services throughout the region: 1) strengthen policy dialogue and policy processes; 2) improve the content of health policies, laws and regulations; 3) realign the institutional structure, roles, and relationships in the health sector, including developing NGOs to participate in the policy process as advocates for change; and 4) develop local counterparts' policy analysis, evaluation and research skills. These strategies were designed to build local capacity, so counterparts could better manage the policy process as well as improve the content of policies, laws and regulations governing health sector. Moreover, the strategies aimed to reduce policy barriers in the other three technical components, increasing the likelihood of success and results. This section is organized by country and further broken down into five sub-sections: Legal and Policy, Institutional Roles and Relationships, Monitoring and Evaluation, Policy Marketing and Public Relations, and Donor Coordination. At the end of each country section is a summary of selected results achieved towards the USAID Intermediate Result of Improved Legislative, Regulatory, and Policy Framework.

Kazakhstan

Legal and Policy

In Kazakhstan, the two major legal and policy activities over the last five years were the development and approval of the State Health Care Development Program for 2005-2010 (SHCDP) and development and approval of a national legal framework for health financing.

Presidential approval of the SHCDP in September 2004 marked the culmination of an approximately two-year policy dialogue and development process. ZdravPlus provided technical input and engaged in policy dialogue with a large number of stakeholders both inside and outside the health sector. Those inside the health sector included the MOH and its affiliated republican institutes, OHDs, providers, and professional associations; those outside the health sector included the President's Administration, Government, Ministry of Finance, and new Ministry of Economy and Budget Planning. The policy dialogue mechanism of working groups was important to the SHCDP process. With support from ZdravPlus, nine working groups were active, with existing working groups evolving to contribute to development of the SHCDP and new working groups formed to discuss elements not yet incorporated into the health reforms.

The SHCDP is very good and encompasses almost all health system development elements including health delivery system structure and prioritizing PHC, health financing, health information systems, health management, human resource development, EBM/CPGs, quality assurance, rational drug use, priority programs such as MCH and infectious diseases, health promotion, and greater population involvement in their own health care. The corresponding implementation plan approved by the Government details activities, assigns responsibilities, and attaches state budget funds to contribute to, and institutionalize, implementation. ZdravPlus realigned its technical assistance and operational support to contribute to initial implementation of this blueprint for health reform and health systems development.

The legal framework for implementation of national health financing reform is largely complete with the most important laws and regulations summarized in the following table.

Legal Framework for Health Financing Reform in Kazakhstan

Date	Document	Brief Description
Pooling of Funds and Single-Payer		
Apr. 1, 1999	Law On Budget System	These laws decentralized the functions of financing and governance to rayon level
Jan. 23, 2001	Law On Self-Governance	
Nov. 21, 2003	Decree of Economic Policy Council #11	Health insurance (payroll tax) would not be reintroduced and the Guaranteed Benefits Package would be financed from the national budget. The health budget would double over three years.
Dec. 29, 2003	Order of the Ministry of Economy and Budget Planning #201	The new functional classification structure of the budget programs merges all hospital programs into one, facilitating the introduction of a new hospital payment system.
Apr. 24, 2004	Budget Code, Law № 548-II	Health budgets are pooled at oblast level and the administrator of the health care budget program should be Oblast Health Department
State Procurement System and Provider Payment Systems		
1999	Law On Protection of Health of Citizens of Kazakhstan	Legal basis for new provider payment systems
May 27, 2000	Government Decree # 806	Regulatory base for new provider payment systems
May 16, 2002	Law On State Procurement	Inconsistent with new provider payment systems.
2003	Law On State Procurement	Article 25 defines health care services purchasing based on health services to people and allowing patient choice.
Aug. 2004	Law On State Procurement	A new article removes health from the scope of state procurement.
Guaranteed Benefit Package and Outpatient Drug Benefits		
Dec. 21, 2004	Guaranteed Benefit Package (GBP), Government Decree #1348	Within the SHCDP context and drives provider payment for health services.
2004	Decree #647 On Drug Benefits	Regulates the provision of free outpatient drugs to children under-one year of age.

The importance of the changes in the national legal base for health financing cannot be underestimated. When health insurance was implemented in Kazakhstan in 1996, it initiated health finance reform as funds were pooled at the oblast level and the Mandatory Health Insurance Fund (MHIF) was able to start implementing new provider payment systems. Health insurance was then cancelled in 1998 for both political and technical reasons. Politically, the multi-payer system where both the MOH and MHIF purchased health services resulted in fragmented health policy and unclear roles and relationships. In addition, the national vertical structure of the MHIF was not accepted by the relatively autonomous oblasts. Technically, the pre-conditions for national health insurance were not met including health delivery system restructuring, sufficient health provider management capacity, clear benefits packages, and no conflicting incentives in provider payment systems. Following the cancellation of health insurance, a health purchasing center was established in the MOH and implementation of new provider payment systems continued in several pilot oblasts.

Shortly after the start of ZdravPlus, changes in several all encompassing Kazak laws impacted the health sector and made implementation of health financing reform very difficult for a number of years. In 2001, the Law on Budget and Law on Self-Governance decentralized pooling of funds to the rayon and city level, severely reducing equity and the ability to implement new provider payment systems containing incentives for increased efficiency in the health sector. In addition, the Law on State Procurement (Goszakaz) established a tender process for health services. It was implemented through negotiations with health facilities on their line item budgets which funded facility infrastructure rather than provider payment systems reimbursing health facilities for health services provided to people who have the freedom to choose where they receive services.

In 2003-2004, ZdravPlus engaged in extensive policy dialogue and provided legal technical assistance that contributed to changing the national health financing legal base. Pooling of funds

at the oblast level, with the OHD serving as the single-payer for public health funds, was included in the Law on Budget. The Law on State Procurement was revised first such that the unit of service for payment was not the facility but the individual choosing where to receive health services, and later to remove health services from the scope of the Law on State Procurement. This change enables implementation of the legal base for new provider payment systems contained in existing health sector laws and regulations such as Government Decree #806. In addition, program budget classifications were consolidated, thus reducing the level of rigid budget control, further enabling the implementation of new provider payment systems, and increasing the autonomy of health providers to manage allocation of resources. The Economic Policy Council Decree stated that health insurance would not be reestablished in the short-term but that the health budget would double over a three year period from 2003 to 2006. Finally, approval of a Guaranteed Benefit Package started the process of better targeting of public health funds, and Kazakhstan initiated an outpatient drug benefit and reimbursement system; evidence from Kyrgyzstan shows that these actions help shift resources and improve service delivery in PHC.

In addition to the two major legal and policy activities discussed above, ZdravPlus engaged in policy dialogue on a number of other health financing and health service delivery topics using both working groups, and direct interaction with Kazak institutions. Examples of health financing topics included health insurance, the role of the private sector, and national health accounts. Significant effort was invested in promotion of evidence-based medicine as it became clear that PHC practitioners were unable to change the content of medical practice and that medical leadership must be involved in this process. Kazakhstan also tendered the development of new clinical protocols. However, the expectation was that about 2000 clinical protocols would be developed in six months, making it difficult to improve the underlying process. ZdravPlus worked with the Republican Cardiology Center and other stakeholders including KAFP on the development of a hypertension clinical practice guideline (CPG). A long, participatory process resulted in approval of CPG researched by methodologists and based on evidence. Other topics for policy dialogue and development were family medicine, pharmaceuticals, and MCH priority programs including IMCI, Safe Motherhood, and reproductive health. Finally, implementation of elements of the health reform model at the oblast level required significant policy dialogue and development as the oblasts are relatively autonomous. ZdravPlus worked with most oblasts in Kazakhstan at one time or another to discuss how to adapt specific interventions to a specific oblast environment and provide technical assistance to develop an appropriate regulatory framework.

Institutional Structure, Roles, and Relationships

Although ZdravPlus worked hard to target technical assistance in a manner that promoted establishment and development of clear institutional structure, roles, and relationships in order to increase long-term sustainability of the health reforms, the unstable Kazak environment also influenced this strategy. A disadvantage was that constant shifts in institutional structure tended to result in inconsistent and overlapping roles and unclear relationships. An advantage was that a tendency toward decentralization allowed delegation of functions and involvement of many government and non-government stakeholders. Determination of the health purchaser ranged from an independent health insurance fund to a MOH Health Purchasing Center and stabilized over the last year with the selection of OHDs as the health purchaser for public or state health funding.

A national EBM Center was not established but a number of satellite centers or functions were developed in KAFP, the Karaganda Drug Information Center, the School of Public Health, Center for Medical and Economic Problems in Health Care, and the Republican Cardiology Center. Following years of dialogue, a Family Medicine Training Center delivering services and training practitioners was established at Polyclinic #2 in Almaty and training practices were affiliated with medical schools in Karaganda and Semipalatinsk Cities. The Karaganda Drug Information Center solidified its status and a number of other oblasts expressed desire for comparable centers.

Professional Associations such as KAFP solidified and expanded their role in professional development. Consumer and business organizations became more active, for example, the Business Women's Association of Kazakhstan (BWAK) took over the Red Apple hotline. Finally, the collaboration between Counterpart International and ZdravPlus on a Healthy Communities Grants Program encountered and supported many developing health NGOs and other community-based organizations.

Monitoring and Evaluation

While ZdravPlus engaged in dialogue with health authorities on monitoring and evaluation and contributed to a number of research studies, the major monitoring and evaluation activity was working with partners in Kazakhstan to design, develop, implement, and refine a PHC monitoring system in Karaganda Oblast. In April 2001, the Karaganda Oblast and City Health Departments and Densaulyk (the government agency responsible for quality control and health statistics) began to formally monitor and analyze the performance of the PHC sector in Karaganda City. The goal of the system is to improve the quality and efficiency of health care in the city. The current monitoring system reflects a change in attitude from the Soviet period, when institutions could be penalized for not meeting pre-set targets. Because the new system is not punitive, health care workers are eager to contribute and use the data to make improvements in their work. The Karaganda monitoring system represents a newly formed cooperation and information exchange between various parts of the health care system which before did not work together or share data with one another, and provides data in a format which is accessible and understandable. Reports are clear and can be used by policymakers, facility managers, and health care providers to make decisions and improve performance. As a result, PHC workers and managers have taken increasing responsibility for PHC performance.

A working group comprised of representatives from Oblast and City Health Departments, Densaulyk, academic institutions, and health facilities developed a set of 15 combined financial and clinical/statistical indicators using the following criteria:

- The indicator relates to the goals of health system development in Karaganda;
- PHC providers can influence the indicator;
- Data for the indicator are accessible and reliable; and
- The indicator is statistically stable with sufficient observations in a year.

Indicators cover such topics as the number of PHC visits for preventative care, immunization rates and early prenatal care rates, appropriateness of ambulance calls, and hospitalization rates for conditions that can be managed in the PHC sector. The monitoring system is computerized in the health information center of Densaulyk, with most of the indicators coming from data generated outside of the PHC system, such as the hospital case database and emergency care database. Data are submitted monthly and analyzed quarterly by the working group to spot trends and identify PHC providers performing above or below the average.

The monitoring system has been very successful in gaining buy-in on all levels by involving medical staff and managers in the monitoring. The working group reviews and analyzes data associated with the PHC monitoring system in Karaganda and encourages PHC providers to use indicator data to improve the quality of PHC. Several concrete factors have contributed to this success, including:

- The system focuses on assessing current capabilities of the PHC sector to benchmark and track future trends rather than using pre-set norms and targets, thus allowing data to be viewed positively by PHC providers.

- Health care workers and decision-makers on all levels are involved in designing the indicators, reviewing the results, and deciding how to improve PHC performance, thus fostering ownership and interest in the system.
- Outcome indicators are monitored and analyzed by the Oblast and City Health Departments with the goal of improving the average level of health services delivery in the city. Individual health facilities in turn look at their own process indicators to determine and address possible reasons for above or below average performance as part of their continuous quality improvement system.
- Objective data from outside the PHC system is gathered in one place, making it for the first time accessible and meaningful to PHC workers. For example, hospitalization rates are collected from the Densaulyk hospital case database with ambulance call rates coming from the emergency care database.

Through the monitoring system, PHC providers in Karaganda have been able to receive information and respond to it, thus increasing their ability to improve efficiency and provide optimal health care. As Dr. Telzhanova of the Zdorovye Family Group Practice explains, "patients used to call ambulances to check their blood pressure, or get injections. We found out which doctors' patients made the most calls to the ambulance services. Then I tried to talk to each doctor and look at each case to determine why the call was made, what could have been done to prevent it. Then the doctors began to explain to their patients why they didn't need to make the call. Little by little, we are achieving success. The monitoring system helps us. We don't need control from above. The indicators show us where we can improve."

Several indicators reflect a shift in health services delivery toward PHC, for example, between 2000 and 2002, the number of visits to PHC facilities for preventative care increased from 25.5 percent of total visits to 28.1 percent. Similarly, the number of ambulance calls resulting in hospitalization (i.e., those that were considered necessary calls, rather than calls for services such as injections or blood pressure checks that can be provided more effectively on the PHC level) rose from 37.2 to 40.3 percent over the same period. At the same time, levels of hospitalization for conditions that could have been more effectively treated in the PHC sector (including asthma, ulcers, anemia, hypertension, and diabetes) decreased from 23.4 to 20.6 percent of total hospitalizations.

The monitoring system in Karaganda continues to be reviewed and revised to ensure maximum utility. Increasingly, emphasis is placed on understanding connections between the monitoring system and continuous quality improvement efforts on the individual institution level, and on using monitoring system data to make management decisions. Based on the successes of the Karaganda monitoring system, in 2003 a similar system was established with ZdravPlus' support in Semipalatinsk. It is hoped that in the near future, the system will be rolled out in other cities in Kazakhstan.

Policy Marketing and Public Relations

As discussed throughout this report, ZdravPlus marketed the need to increase efficiency in the health sector both inside the MOH and outside the MOH to the President's Administration, Government, Ministry of Finance, and new Ministry of Economy and Budget Planning. A chain reaction ensued, leading to development of specific health policies to promote health sector efficiency and eventually to the development of a broad health sector reform strategy, the State Health Care Development program.

Medical specialists, particularly urban specialists, who were both threatened and unconvinced of the value of PHC, pushed back on national roll-out of the establishment of family group practices (FGPs), creating a backlash against PHC. ZdravPlus adapted its policy position on PHC restructuring from advocating for the establishment of independent FGPs to promoting a flexible

urban PHC model combining mixed polyclinics with some independent FGPs. It was felt that PHC entities should at least serve a mixed population as the minimum requirement for developing and strengthening PHC. Kazakhstan accepted this position and produced policy and legal documents stating a policy of urban PHC restructuring consisting of mixed polyclinics combined with some independent FGPs.

Professional Associations were also active in policy marketing, advocacy, and public relations. For example, the Semipalatinsk Family Group Practice Association conducted policy marketing and advocacy activities with city authorities resulting in maintaining the FGP model in Semipalatinsk. They also used media channels to inform the population of the benefits of free choice of FGP and receiving PHC services from FGPs. In general, when opportunities arose ZdravPlus educated both print and television journalists about the health reforms, the population's free choice of FGP, and the development of PHC.

A substantial amount of policy marketing, advocacy, and public relations work occurred at the oblast level. The large country, long distances, decentralization, oblast autonomy, and sophisticated and chaotic environment in Kazakhstan required a high level of effort to adjust to the health policy direction pendulum swings at both the national and oblast level. Oblasts both initiated and stepped back from health reforms rapidly. The ZdravPlus strategy to manage this volatility was three-fold: 1) Continue to promote and build grassroots support for reform through KAFP and other marketing and advocacy mechanisms; 2) Work on core foundation building blocks, such as health information systems, that are desired and needed in any reform environment; and 3) Broadly disseminate information and methodologies from service delivery and quality improvement pilots, such as Safe Motherhood, or on specific health topics, such as that provided by the Drug Information Center. Often oblasts were eager to learn and incorporate a variety of health reform interventions implemented in other oblasts, even if a broad health reform framework was not in place. ZdravPlus provided many basic training seminars at the oblast level to generally inform health authorities and providers about specific health reform elements, thus creating demand for introduction of various interventions.

Donor Coordination

Donor collaboration and coordination can be challenging in Kazakhstan due the unstable policy environment, separation of many donors/projects between the nation's capital, Astana, and the commercial center, Almaty, the relative openness which allows for working effectively without too much coordination, and the changing perception of Kazakhstan given rapid economic growth. In general, ZdravPlus worked hard to collaborate with all multi-lateral donors and agencies including the World Bank, WHO, and UN Agencies, other bi-lateral donors, other USAID health projects, and USAID projects in other sectors, for example, fiscal reform. The project's level of effort in donor collaboration and coordination increased during the State Health Care Development Program process as the perception was that it was particularly important to gain consensus from all stakeholders on the main policies and direction of health system reform and development.

Before the cancellation of the World Bank Health Reform Project in 2001, ZdravPlus collaborated closely with the World Bank to provide technical assistance and operational support to the oblast level health reform pilots in East Kazakhstan and Almaty Oblasts, using a process similar to that in Kyrgyzstan, Tajikistan, and Uzbekistan. For the last few years, the World Bank has provided health-related technical assistance to the Government of Kazakhstan, and ZdravPlus has collaborated with the World Bank on dialogue in health insurance, quality improvement, and health information systems.

Stewardship Results

Indicators for the Stewardship component show significant progress against USAID Performance Monitoring Plan targets in Kazakhstan. ZdravPlus provided support and technical assistance to improve both the content of legislation, regulations, and policies and the process by which they were developed, not an easy task in a difficult policy environment like Kazakhstan. Over five years, ZdravPlus helped working groups develop 45 meaningful products that were presented in government or public for discussion toward legislative, regulatory, or policy improvements and provided substantial contributions to the development of 33 laws, regulations, and policies. In addition, the Project provided technical assistance and support to health-related institutions to conduct 34 policy analysis or research studies. Much of ZdravPlus' input has culminated into legislation codified in 2004-05 in the SHCDP and other health financing laws, as well as in the development of the outpatient drug benefit program.

Additional project assistance was given to support the development of health NGOs as important stakeholders in health reform and service providers to health care organizations, health care workers, and the population. ZdravPlus helped eight NGOs and associations with charters, by-laws, and/or registration and assisted 90 NGOs in undertaking activities with an advocacy or public outreach/education component.

Kyrgyzstan

Indicators for the Stewardship component show significant progress against targets in Kyrgyzstan. ZdravPlus provided support and technical assistance to improve both the content of legislation, regulations, and policies and the process by which they were developed. Over time, the focus of project assistance shifted from reform design and implementation to policy analysis and research to monitor and evaluate implementation and continuously refine and deepen reform interventions. Over five years, ZdravPlus helped working groups develop 44 meaningful products that were presented in government or public for discussion toward legislative, regulatory, or policy improvements and provided substantial contributions to the development of 137 laws, regulations, and policies. In addition, the Project provided technical assistance and support to health-related institutions to conduct 18 policy analysis or research studies. The most significant health sector reforms of the past 10 years have now been institutionalized through the development of four main pieces of legislation – Laws on Health Protection, Health Care Organizations, Health Insurance, and the Single Payer.

Additional project assistance was given to support the development of health NGOs as important stakeholders in health reform and service providers to health care organizations, health care workers, and the population. ZdravPlus helped 42 NGOs and associations with charters, by-laws, and/or registration and assisted 81 NGOs, including Healthy Communities Grants Program grant recipients, in undertaking activities with an advocacy or public outreach/education component.

Legal and Policy

Over the last five years, ZdravPlus has contributed to both the content of health policy in Kyrgyzstan and to development of health policy processes. Health reform in Kyrgyzstan has been successful because Kyrgyz reformers had a long-term vision for the health sector. Prior to the start of ZdravPlus, the Manas Program provided a blueprint and parameters for the Kyrgyz health reform vision, while the pilot in Issyk-Kul helped develop the skills, approaches, experience, and ownership to implement the vision. Experience from Issyk-Kul Oblast informed development, refinement, and implementation of the Manas Program and was constantly connected to the larger health reform picture after a period of initial implementation. As reforms began to be rolled out nationally at the beginning of the ZdravPlus Project, the general policy direction and content of the Manas Program was refined, consolidated, and codified. Health policy over the life of ZdravPlus focused on refinement and deepening of the health reform model, incorporation into a national legal and policy framework, and national extension, as well as institutionalization into the MOH and MHIF of the ongoing refinement of the health reform model and management of the reforms.

The process of using bottom-up implementation experience and evidence to feed into top-down policy and strategy was institutionalized, allowing policy dialogue and development to take on greater meaning and tending to result in decisions, movement, and more robust policy demonstrating increased capacity and commitment, rather than just more dialogue. This was further enhanced by open and participatory working group processes that led to more informed and consensus-based decision-making. While working groups continued to be an effective mechanism to discuss health policy, reform strategies, and activities, ZdravPlus increasingly worked directly with the MOH, MHIF, and other health sector entities as the health reforms became more and more institutionalized. Policy dialogue also shifted focus beyond the health sector to external stakeholders, including the Parliament, President's Office, Government, Ministry of Finance (MOF), Treasury System, Social Insurance Fund, Ministry of Labor and Social Protection, Ministry of Education, and other oblast and local government entities. Our close working relationships with counterparts inside and outside of the health sector, as well as investments in knowledge transfer and capacity building in health policy, have resulted in a high-

level of ownership of the reforms, in both design and implementation, by key stakeholders throughout the system.

ZdravPlus supported the policy process in Kyrgyzstan by drafting concept papers, creating technical working groups, contributing to the development of appropriate legislation, and defining appropriate roles, responsibilities, and relationships for health sector institutions. Over the life of the Project, ZdravPlus contributed to policy dialogue and development on a large number of issues, such as introduction of the single-payer, development of the state-guaranteed benefits package, co-payments, health sector budget formation, roles of MOH (financing) versus local government (management of health facilities), rationalization and health delivery system structure, human resources, family medicine, clinical practice guidelines, licensing and accreditation, quality improvement and quality indicators, and priority programs such as maternal and child health care (MCH).

Over the last year of the Project, ZdravPlus worked closely with the MOH, MHIF, and other donors to develop a health reform strategy for the next five years, called the Manas Taalimi National Health Care Reform Program, and to plan for its implementation using a Sector-Wide Approach (SWAp) mechanism. Health reformers deserve a lot of credit for their commitment to forge ahead despite huge political changes in the country following the March revolution. ZdravPlus contributed technical expertise to develop the strategies and main directions of the reform program as well as to review its specific content, and also helped create transparent and participatory processes that allowed for local ownership, enhanced donor coordination, and validation by expert international consultants.

ZdravPlus continued to support the MOH and MHIF in the development of the legal and regulatory framework for health reform. At the beginning of the Project, this involved the development of legal "waivers" to implement health reforms, such as the single-payer system. As reforms matured and were rolled out nationally, a legal framework roundtable was held following which the Legislative Assembly passed a resolution facilitating the development of a long-term legal framework for reform. This was important because as the reforms progressed, the legal issues began to extend across more levels and sectors of government and become more complicated and important. The permanent legal framework is the culmination of a long process and consists of six elements:

- Health Financing Reform Concept through 2010 (June 17, 2003) outlining strategies and plans regarding mandatory health insurance and introduction of the single-payer system;
- Law on the Single-Payer System (July 30, 2003) describing the single-payer system, including the state-guaranteed benefits package, co-payments, and roles and responsibilities of MOH, MHIF, and territorial MHIFs in paying all health sector facilities;
- Amendments to the Law on Health Insurance (April 21, 2003 and July 15, 2003) updating the 1992 Law to incorporate 10 years of implementation experience and lessons learned and to ensure consistency with the Law on the Single-Payer System;
- Law on Health Care Organizations (August 13, 2004) describing the legal rights and responsibilities of health sector organizations and entities; and
- Law on the Protection of People's Health (January 9, 2005) outlining the rights and responsibilities of the population, describing licensing and accreditation processes, and requiring health management training for health facility managers.

ZdravPlus' lawyer worked with the MOH lawyer for more than two years to provide legal research and drafts of these legal and regulatory documents, and provided assistance to the MOH and MHIF to prepare information to support Parliamentary discussions and hearing. ZdravPlus ensured that the laws were well disseminated throughout the health sector, encouraging the Hospital Association and FGPA to print them in the bulletins they distribute to their provider networks, participating in a series of national and oblast-level seminars that informed more than

700 health specialists and local government officials (co-funded by AED), and providing lectures on the legal and regulatory basis for reform in health management courses.

ZdravPlus also provided specific technical assistance or prepared documents on a variety of other important legal and regulatory topics, including issues related to defining roles and responsibilities in the health sector, definition of functions of health sector entities (MOH, SES, territorial MHIFs, National Drug Committee, MOH Press Center, Republican Center for Health Promotion, blood bank services, etc.), managing health personnel, restructuring the health delivery system (including establishment of FMCs, hospital outpatient departments, oblast merged hospitals, oblast health committees), setting the annual state-guaranteed benefits package, developing licensing and accreditation systems, updating regulations for service delivery and clinical practice for individual and public health services (e.g., child health, mental health), and providing support to health sector NGOs, including community grant recipients, on issues such as registration and development of charters and organizational structures.

Crucial to the success of the Kyrgyz health reforms has been the ability of health sector leaders and reformers to effectively respond to issues and crises that arose during implementation. Policymakers and implementers, with guidance from ZdravPlus, used crises as opportunities to solidify their health reform vision and approach, discussing alternatives, weighing options, and making informed decisions that kept the over-arching vision of health reforms in mind. Examples of crises over the last few years include opposition to the health reforms and single-payer system including co-payments from the Parliament, the Social Insurance Fund not transferring funds to the MHIF, budget reductions from the MOF, and appointment of a new First Deputy Minister of Health resulting in pressure to cancel the single-payer system and reduce the transparency of health sector funds flow. ZdravPlus helped the MOH and MHIF proactively manage these issues and crises, contributing to internal brainstorming sessions to develop strategies to address real and perceived concerns with reform implementation strategies and helping to mobilize health reformers, donors, and high-level U.S. government officials to participate in intensified high-level political dialogue to resolve issues. Active management of these crises, while not easy, ultimately resulted in clear and strong support for the health reforms and improved transfers by the Social Insurance Fund to MHIF. Under-funding of the health sector by MOF continues to be a problem that will hopefully be better addressed through the SWAp process.

Institutional Structure, Roles, and Relationships

One way to approach both implementation of health reform and institutionalization for sustainability is to ensure that as appropriate institutional structures are realigned or created in the health sector, that they have clearly defined and appropriate roles, responsibilities, and authority, and that effective relationships are established between institutional structures. This is especially important to consider in designing and implementing health reform in post-Soviet health systems, as the MOH typically acted as regulator, purchaser, and provider of health services. ZdravPlus paid special attention to developing appropriate institutional structure, roles, and relationships in Kyrgyzstan, working first to separate the health purchaser (MHIF) from health providers/facilities and to develop complementary roles for both the MOH and MOF to support development of MHIF. The MHIF was originally created to introduce new output-based provider payment systems that were not allowed under traditional Soviet budgeting and financing mechanisms, and to support increased autonomy for health care providers over time. More autonomous providers could react to the incentives embedded in payment systems to create efficiencies in the service delivery structure.

Also important to ZdravPlus was helping the Kyrgyz to define roles of and relationships between the different levels of health care administration – including MOH and MHIF at the national level, oblast health departments (when they existed) and oblast MHIFs, and local governments. Through a long policy dialogue process within the framework of Government-wide decentralization

initiatives, it was decided to centralize financing at the oblast level to retain risk pooling and ensure more equitable distribution of health sector resources, and decentralize ownership and management of health facilities to local governments and the health facilities themselves.

ZdravPlus also advocated for devolution of certain aspects of health reform and health system strengthening, to health sector NGOs such as the FGPA, Hospital Association, specialty associations, and Medical Accreditation Commission (MAC). The Hospital Association and FGPA provided services to their members and supported implementation of health reforms, including dissemination of information, trainings, and participation in the development and implementation of clinical protocols and guidelines. Over time, the Hospital Association and FGPA increasingly took on advocacy roles for their members, interacting with the MOH and MHIF on policy issues affecting further development of hospitals, FGPs, and FMCs. Specialty associations have been given increased responsibility to develop clinical practice guidelines in their specialties, in an effort to increase self-regulation of clinical aspects of care by health professionals themselves. MAC provides an independent body implementing a health facility accreditation system designed to help health workers and managers improve their facilities and the quality of services provided by rewarding those institutions that meet certain standards of care rather than penalizing violators or rules. Accreditation contributes to broader health system reforms as it is connected to eligibility for payment under the state health insurance plan.

Monitoring and Evaluation

ZdravPlus has contributed to monitoring and evaluation of health reforms, as well as increasing capacity in the health sector in monitoring, evaluation, policy analysis, and research, in close collaboration with the WHO/DFID Health Policy Analysis Project (HPAP). Over the past five years, ZdravPlus and HPAP have worked closely together, with ZdravPlus mainly focused on providing support to implementing health reform, and HPAP focusing on monitoring and evaluation. As reforms have continued to be implemented, refined, rolled out, and deepened, the need for monitoring and evaluation activities has increased to both evaluate reforms and to continuously provide sound evidence to refine existing or develop new health policies and reform strategies. The more evidence that is created regarding the success of reforms, the more you can remove barriers to the next phase of implementation. This became especially important as reforms became more mature and more controversial, extending beyond individual health services and affecting other parts of the health system that had remained untouched and powerful. The need for objective evidence grew as reformers began to promote the reforms to skeptics and those opposing the reforms. Close collaboration with HPAP also has proved effective in increasing awareness and capacity of the MOH and MHIF to monitor and evaluate their own reforms and to feed analysis and conclusions back into health policy development.

The MHIF has been most active in monitoring and evaluation and applied research related to the impact of their policies, including measuring the effectiveness and impact of their Additional Drug Program, quality monitoring indicators in contracts, and new provider payment systems. MHIF monitoring studies, conducted with technical support from HPAP and ZdravPlus, have led to continual refinements in their systems. Monitoring mechanisms are institutionalized, as MHIF sees the direct benefit of monitoring activities in increasing the effectiveness of their routine operational work. ZdravPlus also worked with HPAP to develop a series of research studies to illuminate the results of the successful Kyrgyzstan health reforms. In addition, ZdravPlus provided technical input and review to a study of the implementation of co-payments, to FGP chart audits, to evaluating the effect of the Additional Drug Program on outpatient utilization (with Boston University), and to three HPAP studies evaluating the effectiveness of the Manas National Health Reform Program, focusing on PHC, restructuring, and health financing. ZdravPlus' work to support development of HIS and improved routine statistics also provides data for enhanced decision-making and builds capacity for better collection and use of health statistics.

ZdravPlus supported development of National Health Accounts (NHA) in Kyrgyzstan. An initial version of a NHA database began functioning in 2001, contributing to policy analysis, monitoring and evaluation, and research. Implementation of accounting and reporting systems related to the introduction of the single-payer system has delayed further implementation of NHA. However, efforts to develop NHA as a mechanism to monitor and evaluate changes in flow of funds and health expenditures as a result of health reforms have been reinvigorated in 2005. In addition, ZdravPlus provided technical support to the process of transforming the data collected from provider payment systems and other sources into a "Data Warehouse" defined as a data format and process accessible to analysts for policy analysis, monitoring and evaluation, and research.

Policy Marketing and Public Relations

Ensuring that those beyond the health sector (e.g., Parliament, Government, etc.) and the population understand and support health reform is critical to its ongoing success. ZdravPlus supported policy marketing and public relations efforts within the health sector, to high-level political stakeholders and to the population. Policy marketing efforts included supporting delivery of routine information from MOH and MHIF to political leaders, and also active management and resolution of issues and crises in health reforms with high-level stakeholders and leaders, through round tables, Parliamentary hearings, and conducting and disseminating research studies demonstrating the effectiveness of health reforms. A concrete example of policy marketing efforts supported by ZdravPlus and directed toward the population was the targeted campaign to market and educate the population about co-payments. While of course the population prefers not to pay for health services, the purpose of the campaign was to inform people, through posters in facilities, brochures, and TV and radio spots, on the simple structure of co-payments so they would know exactly what they were supposed to pay before going into the health provider. This involved marketing the empowerment of the population through this increased knowledge and improved ability to plan their health care expenditures and replace uncertainties regarding informal payments. The campaign resulted in increased knowledge of the population on the co-payment policy, reduction in informal payments, and increased overall patient satisfaction with the payments they were making.

Both the FGPA and Hospital Association also provided policy marketing and advocacy for newly developing health providers. The FGPA was very active in advocating both health reform and understanding PHC and family medicine and the improvements they could bring to population health services. They actively participated in working groups, conducted policy dialogue with the Government, President's Administration and Parliament, and attempted to engage narrow specialists in polyclinics/FMCs and leading medical specialists to discuss PHC and family medicine in efforts to minimize competition in providing PHC services. Oblast FGPA affiliates also actively engaged in discussion of PHC and health reform issues with local government authorities. ZdravPlus also worked with consumer and patient groups to advocate for specific policies, for example, promoting the Additional Drug Program together with the MHIF.

To institutionalize policy marketing and public relations functions, ZdravPlus worked with the MOH and MHIF to support the development of a MOH Press Center in 2002. The Press Center was created to better communicate the rapid reforms that were taking place and help the Government and the population to understand the benefits expected from reforms. The center is charged with distributing information on health care reform through television, radio, and print media. The Center's daily activities include collecting and disseminating information on health care reform, laws, and prikazes to journalists and NGOs; maintenance of a website about the health care system; review of press articles on health care; organizing and moderating roundtables and seminars on health care reform; producing video materials on health care topics; and responding to information requests.

The Press Center has worked to ensure positive, accurate press coverage by encouraging discussion and understanding of the issues, through seminars, and by showing journalists the reforms in action. In summer 2003, for example, just before co-payments for health care were to be introduced in South Kyrgyzstan, the Press Center arranged a field trip for journalists to Issyk-Kul Oblast in the north, where co-payments had been piloted and the system was already working. The journalists were able to see the reforms in action and to interview health care workers and patients. The journalists not only had a story to tell their readers about what they saw that day, but they also gained a personal appreciation for the benefits of the reforms and a desire to cover the issues. As the manager of the Press Center explains, "One of our biggest achievements has come from educating colleagues about the Law on Freedom of Information. Armed with a copy of this law and an explanation of the rights it guarantees, journalists have been empowered to demand information from the MOH. For their part, MOH officials have learned that it is part of their job to provide such information to the public." This has increased the level of knowledge of the population and also increased the accountability of the MOH to respond to the population's concerns and health needs.

ZdravPlus has provided significant technical assistance to the Press Center as well as operational support to cover some basic administrative and travel costs. Office space is provided by the MHIF. The Press Center finds other funding from a variety of international organizations, and manages to receive free airtime and print space from local media outlets. The success of the Press Center is largely the result of the transparency which it has helped to instill in the MOH and the genuine interest in health care reform that they have nurtured by informing journalists, resulting in the majority of coverage of health care being both accurate and positive.

Donor Coordination

Donor coordination and collaboration has been an important element in Kyrgyzstan to ensure consistency of reform content and implementation approaches, better leverage donor resources to support the government's Manas National Health Program, and yield greater impact of donor interventions. ZdravPlus worked hard to create close and effective collaborations with donors, both those exclusively in the health sector and others more broadly in Kyrgyzstan, developing coordination strategies that worked to each organization's comparative advantages and that relied on largely informal interactions. ZdravPlus collaborated closely with the World Bank, Asian Development Bank, WHO, UN Agencies, DFID, GTZ, the Swiss Development Corporation, TACIS, and Peace Corps. The Project collaborated with all USAID health programs, including AIHA partnerships on restructuring medical education, CDC on general public health strategies, infectious diseases, laboratories, and disease surveillance, Project HOPE on TB and Child Survival, and the CAPACITY Project on HIV/AIDS. ZdravPlus also collaborated with USAID economic restructuring and democratic transition projects, on such topics as fiscal reform, the Treasury system, decentralization and local governance, WTO accession, and community investment and development. As mentioned above, collaboration with WHO/DFID HPAP has proven effective in increasing awareness and capacity of the MOH and MHIF to monitor and evaluate their own reforms and to feed analysis and conclusions back into health policy development.

Collaboration with the World Bank Health II Project has been a particularly fruitful collaboration for ZdravPlus in Kyrgyzstan, paying significant dividends to both USAID and the World Bank. The World Bank brings material investment and political leverage to increase the success and visibility of the health reform program, and USAID brings technical assistance to World Bank projects to enhance the effectiveness of their investment. ZdravPlus experts contributed to the initial design of Health II, participated in World Bank missions, and provided technical and operational support to effectively co-manage a number of transitions and crises in health reforms, such as reduction of the health sector budget, over the past five years. The World Bank has played a particularly important role in helping to address political issues, both within the health sector

and more broadly. The main technical connection between ZdravPlus and the World Bank has been to work together to roll-out the reforms nationally. National expansion beyond pilots in Issyk-Kul, Chui, and Bishkek have required a significant amount of dialogue and coordination with the MOH and among donors to revise interventions, engage in policy dialogue, prepare health providers and health workers, and actually implement reforms.

Over the last year of ZdravPlus, the informal nature of donor collaboration shifted to a new mechanism, development of a Sector-Wide Approach (SWAp). The Kyrgyzstan health SWAp is the first SWAp in any sector in Central Asia, and maybe the whole former Soviet Union. It requires a new level of donor coordination and collaboration to support development and implementation of the next generation of health reforms in Kyrgyzstan, as described in the Manas Taalimi National Health Reform Program (2006-10). In the past year, a unified donor front was important to keep the health reform design and SWAp process on track amid early opposition and chaos during the March revolution. The SWAp mechanism encourages all donors to support government-designed health reforms in a more formal and integrated fashion, either with direct budget support or through parallel financing mechanisms. It also requires donor commitment to continuous capacity building for the MOH and other health sector institutions who assume increased ownership and accountability for health reforms and for the MOF and Treasury System who assume increased financial management and procurement responsibilities in line with international standards.

Stewardship Results

Indicators for the Stewardship component show significant progress against USAID Performance Monitoring Plan targets in Kyrgyzstan. ZdravPlus provided support and technical assistance to improve both the content of legislation, regulations, and policies and the process by which they were developed. Over time, the focus of project assistance shifted from reform design and implementation to policy analysis and research to monitor and evaluate implementation and continuously refine and deepen reform interventions. Over five years, ZdravPlus helped working groups develop 44 meaningful products that were presented in government or public for discussion toward legislative, regulatory, or policy improvements and provided substantial contributions to the development of 137 laws, regulations, and policies. In addition, the Project provided technical assistance and support to health-related institutions to conduct 18 policy analysis or research studies. The most significant health sector reforms of the past 10 years have now been institutionalized through the development of four main pieces of legislation – Laws on Health Protection, Health Care Organizations, Health Insurance, and the Single Payer.

Additional project assistance was given to support the development of health NGOs as important stakeholders in health reform and service providers to health care organizations, health care workers, and the population. ZdravPlus helped 42 NGOs and associations with charters, by-laws, and/or registration and assisted 81 NGOs, including Healthy Communities Grants Program grant recipients, in undertaking activities with an advocacy or public outreach/education component.

Tajikistan

Legal and Policy

In Tajikistan, in 2000 the health reform process had just begun and initially ZdravPlus engaged in policy dialogue largely with and through the Somoni Team, funded by WHO, to develop capacity and a master plan for health reform. The overall policy perspective of the Somoni Team was quite progressive; however, in some ways they functioned as a parallel MOH and were generally unable to implement the health policies they developed. The Somoni Team's role and relationships with the World Bank Health Reform Project were not always clear and the ZdravPlus strategy was to coordinate and provide technical input to the extent possible but also to prioritize incorporating Tajikistan health sector institutions into the health reforms and build capacity outside of Dushanbe.

Minister Fuzilloev was appointed Minister of Health in January 2003 and opportunities developed for broader policy dialogue. ZdravPlus worked with the MOH to institutionalize the Somoni Team and establish and develop Working Groups (WGs) as a participatory policy dialogue and development mechanism. Topics for WGs and other policy dialogue mechanisms included family medicine, evidence-based medicine and clinical practice guidelines, rational drug use, MCH priority programs, health financing, health information systems, and health promotion. A change in the constitution allowing paid services in health care provided an opening to intensify health financing policy dialogue and eventually resulted in Presidential approval of a Health Financing Strategy (see Resource Use section). By the end of ZdravPlus, policy dialogue mechanisms, policy development, and establishment of a legal base had matured significantly and a reasonable foundation existed to move forward with health reform implementation. The Basic Benefit Package (BBP) had recently emerged as the major health policy priority.

Institutional Structure, Roles, and Relationships

Tajikistan still has much work to do to fully specify and build capacity in health sector institutional structure, roles, and relationships which will enable it to reform and develop the health system. ZdravPlus focused on the policy and legal basis to establish a health purchaser and creation of family medicine training centers and a drug information center. Much discussion has centered on the appropriate level for the health purchaser. As the World Bank pilots, containing introduction of new provider payment systems, were at the rayon level the initial perspective was to create a health purchaser at the rayon level. However, a rayon level health purchaser does not allow increases in either equity or efficiency and after much discussion Tajikistan decided on an oblast level health purchaser. This is outlined in the Health Financing Strategy approved by the President.

Policy Marketing and Public Relations

ZdravPlus worked with MOH partners to develop a training module intended to address two critical and related issues - the need to educate health authorities and health professionals about health reform, and the need to build capacity outside of Dushanbe City. The training module described the purpose of the reforms, plans, legal basis and other information relevant to rayon level health authorities and health professionals. It also introduced basic health management principles as a way to begin increasing capacity for health reform implementation. ZdravPlus consultants contributed to design of the training module and trained MOH and OHD staff as trainers. In addition, ZdravPlus funded training costs with the result that most rayon level health authorities and many health professionals in Tajikistan received an early introduction to principles of health reform and health management. The process of educating all stakeholders needs to continue in order to build a foundation of knowledge and support for health reform implementation.

The Tajikistan Press Center, established toward the end of the ZdravPlus Project, is modeled on the Kyrgyzstan Center, and took on as its initial tasks the organization of round tables to foster discussion on health topics between the MOH and journalists. The Center will continue to work in close collaboration with the ZdravPlus follow-on project, to develop strategies for integrating public education (through health care workers and the mass media) into the system, as health care reform moves forward in the country.

Donor Coordination

In Tajikistan, collaboration with other donors and projects presented challenges during the first few years of the ZdravPlus Project due to travel restrictions and limited access, limited coordination and direction from the MOH, and a focus on humanitarian assistance rather than development. Over time, ZdravPlus coordinated with WHO, UNICEF, World Bank, ADB, and Swiss-funded Project Sino on joint missions and strategy development. ZdravPlus together with WHO have taken the lead on coordinating donor collaboration meetings. At the end of ZdravPlus, the project was contributing technical assistance to the development of the second ADB and World Bank Projects.

Turkmenistan

Legal and Policy

Limited progress was made in establishing new policy dialogue mechanisms or developing a broad legal and policy framework. Decrees were required for all activities and ZdravPlus worked closely with the MOH to develop and approve these decrees. Implementation of activities did often result in changing legal and operational practices of various health institutions, small but important steps in shifting the way health services are delivered in Turkmenistan.

Institutional Structure, Roles, and Relationships

In Turkmenistan, the environment did not allow assessment or realignment of institutional structure, roles, and relationships. However, ZdravPlus was able to work with the Republican Mother and Child Health Center and Healthy Lifestyles Center and focused on building capacity in those institutions.

Donor Coordination

ZdravPlus collaborated and coordinated very closely with the USAID Health Family Project implemented by Project Hope. The two projects showed a unified face in dialogue with the MOH, enabling them to jointly implement IMCI training and operational support with the Republican MCH Center. In addition, the project worked with other USAID projects to the extent possible. ZdravPlus collaborated very closely with the Turkmenistan branch of the WHO and coordinated with UNICEF and UNFPA. Together with these organizations ZdravPlus engaged in policy dialogue with the MOH and often implemented joint activities.

Uzbekistan

Legal and Policy

In Uzbekistan, both USAID and the World Bank initiated their health reform activities under the umbrella of the 1996 Cabinet of Ministers Resolution #182 on "Development of social-sector infrastructure in rural areas." This resolution laid the foundation for upgrading and modernizing the old-fashioned rural social institutions of the Soviet era, including the primary health care system. The 1998 Presidential Edict #VII-2107 on "Health Care Reforms" broadened the reforms and commendably acknowledged constraints in the sustainability of the existing public system, while recognizing the constitutional rights of citizens to equal access to health care delivered by qualified personnel.

Extensive technical assistance was provided to legal and policy activities related to financing and management elements of the rural PHC reforms. Technical assistance contributed to finalizing the legal basis for the initial three pilot rayons in Ferghana, Navoiy, and Sirdaryo Oblasts, codified in the 1999 Cabinet of Ministers Resolution #100 and the related national and oblast level regulatory documents. An additional legal basis was required to begin the roll-out to all rayons in the three oblasts. A joint letter from the MOF and the MOH was signed and sent to the Cabinet of Ministers to provide a basis for expansion of financing and management reforms. The Cabinet of Ministers approved expansion starting from January 1, 2002. Finally, the second phase of roll-out to Karakalpakstan Autonomous Region (KKP) and Khorezm Oblast was approved through legal and regulatory documents and began in January 2004.

ZdravPlus also engaged in policy dialogue on a number of other health financing and health system structure topics including health insurance, privatization, national health accounts, and urban PHC. In service delivery, the significant legal and policy activities related to EBM/CPGs, general practice and medical education, and MCH (see Service Delivery section). In addition, technical assistance was provided to research, development, and refinement of a large number of regulatory documents enabling continuing implementation of the health reforms.

ZdravPlus contributed significant technical assistance, training, and operational support to the development of joint working groups (JWGs) as a policy dialogue mechanism. These JWGs developed slowly, partly due to the hierarchical environment in Uzbekistan and partly due to lack of policy and technical capacity. However, by the end of ZdravPlus, a number of JWGs were functioning including national and oblast-level JWGs on Health Finance and Management Reforms, the national-level JWG on Health Information Systems, the national-level Steering (Policy Support) Committee and Working (Technical Support) Group on Quality Improvement, oblast and rayon-level Quality Improvement Operational Groups, and the national-level Joint Technical Group on GP Curriculum. JWGs brought participatory processes, consensus building, and enhanced technical capacity to policy development, implementation support, refinement of mechanisms, and analysis of results. A multitude of policy and implementation issues were discussed in these groups, examples include roll-out plans, formation of budgets, refining the capitated rate payment system, resolving SVP late payment issues with oblast authorities, SVP staffing schedules, health management training, population database, clinical information system, improving the GP training curriculum, CPGs, national quality improvement policy, changing SES regulations to facilitate Safe Motherhood, reproductive health, health promotion campaigns, and health education in schools. The JWGs were at times instrumental in furtherance of the ongoing health reforms. For instance, the JWG on Health Finance and Management Reforms played a critical role in building increased ownership of the per capital finance model and in adding greater momentum to the pilots in their quick transition from 'experiments' to the national replication phase endorsed by the government.

Institutional Structure, Roles, and Relationships

Although Uzbekistan did not broadly define or revise institutional structure, roles, and relationships in the health sector, significant progress was made in solidifying or establishing reform institutions and building capacity in targeted areas. The Oblast Health Department (OHD) was established as the health purchaser with realigned structure and functions. Significant capacity was built in the Ferghana, Navoiy, and Sirdaryo OHDs to enable pooling of funds and operation of the new capitated rate payment system. The model of the OHD as health purchaser is incorporated into the national roll-out of the rural PHC model. The autonomy and management capacity of SVPs is significantly greater than before the reforms, their relationship with the OHD is clearer, and they are able to implement quality improvement activities.

An EBM Center was established in the Post-Graduate Institute (PGI) and it is capable of driving continued development of EBM/CPGs. General Practitioner Training Centers are established throughout Uzbekistan and will continue to develop and introduce general practice. The first Drug Information Center (DIC) in Uzbekistan was established in Ferghana Oblast. Although establishment of NGOs is difficult in Uzbekistan, both the SVP Association and the GP Association have been able to operate and ZdravPlus collaborated with Counterpart International to develop selected NGOs and community-based organizations through the Healthy Communities Grant Program. Finally, a process of institutionalization of the health reforms is occurring, for example, Uzbek rayon coordinators have taken over operation and management of a variety of reform activities including finance, management, and quality improvement.

Monitoring and Evaluation

Monitoring and Evaluation Working Groups (M&E WGs) were established in Uzbekistan at both the oblast and rayon levels to monitor and evaluate the results of implementation of the rural PHC model. Initially, the Oblast M&E WG discussed prioritizing aspects of PHC that should be monitored routinely as signposts for how the system is working and routine decision-making while Rayon M&E WGs developed a preliminary list of indicators for routine monitoring. The process took a long time to develop in Uzbekistan as the normal M&E process was based more on political considerations than assessment and analysis of evidence. Gradually, the WGs, authorities, and providers developed more capacity for M&E and the system and process improved.

Results of M&E activities in Uzbekistan showed that the per capita finance reforms proved to have provided better motivation and incentives to the rural PHC providers to focus on preventive care, target resources to the most vulnerable populations, and thereby resulted in increased use of PHC services by rural people. For example, World Bank evaluations have shown that, among others, registration of pregnant women supervised by SVP doctors increased by up to 90 percent in the early period of pregnancy and the proportion of children receiving a complete set of vaccinations in pilot regions has risen to 97-99 percent. Pooling of PHC funds at the oblast level has contributed to a more equitable redistribution of rural PHC resources among the pilot rayons and increased per capita allocations to primary care facilities/SVPs over time: the share of rural PHC facilities in the pilot rayon health budgets rose from 16 percent in 1999 to 21 percent in 2004 in Ferghana, and from 22 percent in 2001 to 29 percent in 2004 in Navoiy. Overall, the reforms have succeeded in attaining efficiency gains through reductions in costly hospital admissions and increased use of outpatient PHC services, improved resource use through improved funding for recurrent expenditures such as pharmaceuticals and supplies and decreased fixed costs such as staff inputs (5-15 percent depending upon pilot oblasts), in addition to better availability of resources and quality of services at the rural PHC facilities/SVPs in the pilot sites than in non-pilot sites.

In addition to providing technical assistance and capacity building towards routine monitoring, ZdravPlus also worked with partners in Uzbekistan to develop a number of special research studies to address questions which emerged during the operational implementation process. These studies were meant to provide policy level decision-makers with ground-level evidence and perspectives, as well as foster an evidence-based problem-solving and decision-making culture among policymakers. The following operational issues were studied:

- The use of per capita funds by the reformed PHC facilities, including the trends in accumulation and utilization of the Facility Development Funds;
- The Chapter 4 (non-salary recurrent cost) requirements for optimal functioning of the PHC facilities;
- Job and workload assessments of the Financial (Practice) Managers; and
- Management training needs of the PHC managers.

The findings of these studies have shown that: (a) Per capita rates for PHC facilities will require further adjustments in order to provide at least 25-30 percent of facility budgets for non-salary recurrent costs (drug, medical supplies, utilities, etc.); (b) Monthly funding should be made available to the PHC facilities by the finance departments according to the approved budgets in a timely fashion and in a single disbursement; (c) Flexibility to retain and reinvest savings for facility and service development will need to be preserved and improved further; (d) Oblast Health Departments should assist and support the PHC managers in making local decisions to allocate Facility Development Funds more on drugs and other needed medical supplies; and (e) To the extent feasible, financial managers could serve multiple facilities, especially small rural PHC facilities with similar facilities in the vicinity.

Donor Coordination

In Uzbekistan, as in the other Central Asian countries, ZdravPlus collaborated with other USAID projects, UN Agencies, multi-lateral and bi-lateral donors. However the main collaboration was with the World Bank in implementation of the Health I Project. In Kyrgyzstan and to a certain extent Kazakhstan, the ZdravReform and ZdravPlus Projects had initiated pilot reforms and then collaborated with the World Bank to roll them out. However, the dynamic in Uzbekistan was different in that the World Bank and ZdravPlus collaborated in the initial pilot phase as well as the roll-out phase. There were advantages to this, for example, the ability to leverage the policy influence of the World Bank and the timing of ZdravPlus technical assistance and operational support for reform implementation better matching the provision of commodities under the World Bank Project. While not a disadvantage, the joint implementation of the pilot phase did require enormous good will and coordination among all parties every step of the way. We believe it was successful because the Uzbekistan MOH recognized, accepted, and promoted the benefits of this collaboration and both World Bank and ZdravPlus staff committed to a higher level of effort to coordinate and collaborate.

Stewardship Results

Indicators for the Stewardship component show significant progress against USAID Performance Monitoring Plan targets in Uzbekistan. ZdravPlus provided support and technical assistance to improve both the content of legislation, regulations, and policies and the process by which they were developed. Over five years, ZdravPlus helped working groups in Uzbekistan to develop 35 meaningful products that were presented in government or public for discussion toward legislative, regulatory, or policy improvements and provided substantial contributions to the development of 59 laws, regulations, and policies. In addition, the Project provided technical assistance and support to health-related institutions to conduct 28 policy analysis or research

studies. ZdravPlus provided significant assistance in developing regulations to guide roll-out of rural PHC reforms, and to work with counterparts to begin to design health reform interventions in urban areas and at other levels of care.

Additional project assistance was given to support the development of health NGOs as important stakeholders in health reform and service providers to health care organizations, health care workers, and the population. ZdravPlus assisted 84 NGOs in Uzbekistan, including Healthy Communities Grants Program grant recipients, in undertaking activities with an advocacy or public outreach/education component.

RESOURCE USE

Improving equity, access, efficiency, and quality of health services in the Central Asian health systems requires addressing the major problem of the former Soviet system – excess capacity and inefficiency. This problem is exacerbated by the collapse of funding to the health sector in all five Central Asian countries. The long-standing ZdravReform and ZdravPlus strategy to address this was to invert the pyramid of the health delivery system by broadening and strengthening PHC and restructuring the inefficient hospital structure. ZdravPlus was successful in solidifying this process in Kazakhstan, Kyrgyzstan, and Uzbekistan. Increased efficiency and reinvestment of the resulting savings have increased equity, access, and quality of health services. The core of the strategy was the introduction of new provider payment systems (including supporting information systems) and increased facility autonomy to allocate resources, which fundamentally changed the financial incentives faced by health providers and became a catalyst for reform. This section is organized by country and further broken down into sub-sections as appropriate in each country, including: Health Financing; Restructuring Health Delivery System and Human Resource Use; Health Information Systems; and Health Management. At the end of each country section is a summary of selected results achieved towards the USAID Intermediate Result of Improved Use of Health Care Resources for Primary Health Care.

Kazakhstan

Health Financing and Restructuring Health Delivery System

Although the policy environment was difficult for PHC restructuring and strengthening, over the life of ZdravPlus, the project provided technical assistance to the national level and many oblasts and cities on how to restructure the PHC sector into both mixed polyclinics and independent FGPs. Early in ZdravPlus, MOH Prikaz #500 directed the establishment of FGPs throughout Kazakhstan. As the process was initiated very rapidly, the restructuring was shallow and easy to reverse, which subsequently occurred over the next few years. By the end of ZdravPlus, most oblasts and cities in Kazakhstan were initiating a new process of PHC restructuring. KAFP was very active at the oblast and city level, engaging in dialogue and providing technical input on how to restructure the health system to provide comprehensive and responsive PHC services to the population.

As discussed in the Legal and Policy section, during the middle years of the ZdravPlus Project overarching laws impacting the health sector mandated rayon pooling of funds and made it virtually impossible to implement new provider payment systems at the oblast level. However, technical assistance and operational support were continuously provided to a number of cities who were moving forward to implement or refine new provider payment systems regardless. Areas where technical assistance was provided included design or refinement of provider payment systems, budget formation, funds flow mechanisms, and system operational procedures. New provider payment systems were refined and implementation continued, primarily in the pilot sites of Zhezkazgan and Karaganda Cities, although at times work progressed in other sites including Pavlodar Oblast, Semipalatinsk, and Almaty. A specific target of technical assistance was refinement of the case classification system for the case-based hospital payment system. This refinement was facilitated by continuous improvement in the health information systems providing the data needed for analysis and refinement of provider payment systems.

Following the approval of the legal base for national health financing reform in early 2004, ZdravPlus worked with the MOH to develop a detailed implementation strategy and plan. It was decided to use approximately bi-annual cycles of training seminars to educate oblast health and finance authorities and develop and disseminate regulations and methodological information. Two cycles of training consisting of two parts each were completed in 2004 and early 2005 with

support from the AED START Program. The first part of a cycle is a national level seminar for about 50 people that informs but also develops regulatory and methodological information. The second part of a cycle utilizes regional training seminars to educate all oblast health and finance authorities as well as some health facility managers on technical elements and implementation details for the selected training seminar topics. The four regional training sites approximate north, south, east, and west and are Karaganda, Almaty, Ust-Kamenogorsk, and Uralsk Cities.

The first seminar cycle covered the new legal base for health financing reform and dissemination of technical information on establishing the OHD as the single-payer, pooling of funds at the oblast level, and budget formation including consolidation of budget programs. The second seminar cycle topics were reviewing experience and methodology for pooling of funds and budget formation, as well as discussions on provider payment systems and the new outpatient drug benefit reimbursement mechanism. In addition, the status of regional information systems and their preparedness for the budget consolidation process and effective support of new provider payment methods were analyzed. These training seminars are popular with both national and oblast level participants and they have become an efficient and highly effective tool for promoting health financing reform products and transferring knowledge to oblast level health and finance authorities and health facility managers.

In addition to implementing a single-payer system, pooling of funds, and new provider payment systems at the oblast level, ZdravPlus also provided technical assistance on other national health financing issues. Two major topics were how to determine level of health funding and increasing equity of health resource allocation across oblasts. Kazakhstan decided not to reintroduce a health insurance tax and instead, chose to double the health budget over three years. As the health financing reforms were moving away from budget formation and provider payment based on health facility infrastructure normatives, a new mechanism was needed to guide determination of health budget levels and the budget formation process. An initial perspective was to determine budget requirements and possibly pay providers based on clinical protocols. ZdravPlus advocated against this methodology as it provides very little incentive for efficiency and through Boston University developed a research paper on possible methodologies to determine health budget levels in the post-Soviet environment. ZdravPlus also provided technical assistance on more equitable allocation of health funding across oblasts through development of improved resource allocation mechanisms. Kazakhstan is gradually increasing equity of health resource allocation across oblasts. In 2000, the per capita spending on health in the highest per capita oblast was 4.85 times as much as that in the lowest oblast, while in 2005 it was only 2.09 times as great.

Dialogue on how to invest the increase in the health budget led to general agreement that priorities were rural PHC and MCH programs. In addition, Kazakhstan decided to implement a new outpatient drug benefit after assessment of the Kyrgyz additional drug package which increased PHC utilization, reduced hospital admissions, and facilitated shifting resources to PHC. An outpatient drug benefit (ODB) for children under age one was approved nationally by Government Decree #674 in 2004. The ODB package will cover common PHC-sensitive child diseases and encourage the use of PHC as only those providers will have the right to prescribe the drugs. It will augment the implementation of IMCI and new clinical practice guidelines in the country and contribute to quality improvement. At the request of the MOH, ZdravPlus together with Boston University provided technical assistance in estimating costs of the ODB. Cost estimates used came from the drug price and availability survey conducted earlier in Karaganda by Drug Information Center. While the legal base for the ODB is national, it is intended that the drug reimbursement mechanisms, including relationships with pharmacies, will initially be piloted in Karaganda Oblast. At the end of ZdravPlus, the ODB was just beginning and will take time to implement.

Health Information Systems

At the start of ZdravPlus, pilot oblasts were moving forward in health financing reform including implementation of new provider payment systems. By the end of ZdravPlus, a national legal framework had been approved for health financing reforms including pooling of funds at the oblast level and national implementation of new provider payment systems. However, during the middle of ZdravPlus, implementation of the Law on Self-Governance resulted in pooling of funds at the rayon level rather than the oblast level, making implementation of new provider payment systems virtually impossible at that time. This delay in health financing reform implementation provided an opportunity for further development of health information systems (HIS) to support both the new provider payment systems and broader health service delivery reforms. ZdravPlus worked to convert the problem of inability to achieve the pooling funds pre-condition for health financing reform into an opportunity to further develop the HIS foundation. The Project invested significant resources in technical assistance, development of HIS products, and operational support for implementation of new HISs. A framework for HIS and specific activities are outlined below:

Development of a Comprehensive, Integrated HIS

The predecessor project to ZdravPlus, ZdravReform, provided technical assistance and operational support to pilot oblast partners to design, develop, and implement three basic computer software modules required for implementation of new provider payment systems and health service delivery performance improvement. The population database facilitated population free choice and enrollment in a FGP as well as capitated rate payments to FGPs based on the number enrolled. A new, automated hospital database, providing both clinical and billing information, enabled operation of the new case-based hospital payment system, internal hospital data analysis, and management decision-making improvements, and system-wide monitoring (see Monitoring and Evaluation section for description of PHC monitoring system). A new outpatient clinical information system was not directly connected to PHC payment, but provided information for management decision-making and performance improvement for FGPs and other outpatient providers. ZdravPlus provided technical assistance to refine these modules, enabling their rolled-out or horizontal expansion to other oblasts (see sections below).

However, creating and developing an improved HIS requires more than just independent software modules, they need to be integrated into a comprehensive HIS to enable health delivery system performance improvement and monitoring and evaluation at both the facility and health system level. The HIS modules were initially developed in Zhezkazgan Oblast which then had to be adapted and brought to Karaganda Oblast when those two oblasts were merged. ZdravPlus worked with Zhezkazgan City and Karaganda Oblast to roll-out the individual software modules to Karaganda Oblast and to pilot the development and implementation of an integrated HIS. Integrating the modules into a comprehensive HIS is a very difficult task requiring significant technical assistance and operational support to both health authorities and facilities. Working with the OHD, Densaulyk (the former MHIF vertical institutional structure converted from health purchaser responsibility for information systems and quality control), and individual health facilities, ZdravPlus integrated the various software modules into a comprehensive HIS and established data exchange standards and mechanisms facilitating the movement and analysis of health information. This integrated HIS has been implemented in Karaganda Oblast, numerous national authorities from Astana have observed and assessed it, and a decision has been made to use the Karaganda Oblast HIS as a model for design, development, and improvement of the national HIS.

Hospital Database

As described above, a new hospital database is critical to serve as the information and billing system for case-based hospital payment and hospital level service delivery improvements. The hospital database implemented in various oblasts and cities now has approximately ten million cases. It provides information for health statistics, quality improvement, and design and development of refined case-based hospital payment systems. During ZdravPlus, the hospital database was expanded to all of Karaganda Oblast and introduced in East Kazakhstan, West Kazakhstan, and Atyrau Oblasts, as well as some hospitals in Almaty. The HIS foundation for case-based hospital payment implementation is significantly improved in Kazakhstan, particularly due to the development and implementation of hospital database standards allowing for analysis of patient data from each oblast, although it will need national standardization.

At the start of ZdravPlus, United States Government (USG) policy was to initiate activities in Atyrau Oblast through the Atyrau Regional Initiative. The Atyrau Regional Initiative was a cooperative effort on several levels: between the USG and the private sector, between USG and other international donors (UNDP and EBRD), among USG agencies, and between the USG and the Atyrau local government and national government of Kazakhstan. The Atyrau Regional Initiative was designed to improve the living environment for Atyrau's population and remove impediments to domestic and foreign business in order to stimulate regional economic growth and job creation as well as enhance trade and investment opportunities in Kazakhstan. Although the Atyrau OHD was not interested in broader health system reform, they wanted to improve their health information system. USAID, ZdravPlus, Chevron, and the Atyrau OHD developed a GDA to implement the automated hospital database and improve health information systems. Chevron provided computers and ZdravPlus provided technical assistance to adapt, install, train staff, and provide operational support. From 2000-2002, the hospital database and related HIS improvements were implemented at the OHD and fourteen hospitals in Atyrau Oblast. The improved health information system was institutionalized in Atyrau and will enable more rapid implementation of the national health financing reforms.

Population Database and Enrollment

The initial Zhezkazgan population database was refined and used in enrollment campaigns in Zhezkazgan and Karaganda Cities in Karaganda Oblast, Semipalatinsk and Ust-Kamenogorsk in East Kazakhstan Oblast, Kokshetau in Akmola Oblast, and all of Pavlodar Oblast. Free choice of FGP and enrollment campaigns were intended to increase population involvement in health and promote the development of PHC. Free choice and enrollment continue to achieve these objectives, and over time the linkage between enrollment and health financing also becomes stronger, with the primary objective of enrollment determining capitated rate payment.

A major ZdravPlus activity was adapting and implementing the population database in Almaty, one of the first health reform activities in the former capital city. In August 2002, the Almaty CHD requested technical assistance from ZdravPlus to develop and implement a population database: i) to ensure the correct registration of patients in outpatient facilities as population overestimation had seriously impacted the city's health budget; and ii) to provide enhancements in statistical, clinical, and financial data in order to improve the decision-making process in both the CHD and city health facilities. In December 2003, ZdravPlus completed work with Almaty partners on an integrated population database refined for implementation in two pilot facilities. The Almaty CHD, the two pilot health facilities, and ZdravPlus worked together over the course of a year to gather data for the population database through a process of open registration which allowed the population to select a primary health facility of their choice. Trained registrars visited each household in the community explaining the purpose of the registration. As a result, over 60,000 individuals became registered and their data was entered into the population database. ZdravPlus procured equipment for the project, refined the database, and trained operators and other staff in the two pilot health facilities. The Almaty CHD plans to extend the population database throughout the city and connect it to capitated rate payment for PHC. In addition, this

refined version will most likely be accepted for national roll-out although this decision will be made in the context of development and implementation of a national HIS concept.

HIS Concept and Other HIS Activities

In 2004-2005, ZdravPlus provided technical assistance to Kazakhstan in the development of a national HIS concept. While the HIS concept may be too ambitious in its incorporation of information technology and programs such as telemedicine, it also allows continued step-by-step development and improvement of a national HIS. Finally, ZdravPlus engaged in dialogue and provided technical assistance to a variety of specific technical tasks enabling the MOH, Densaulyk, and other health sector institutions to improve their HIS.

Health Management

ZdravPlus continued the long-standing ZdravReform Project strategy of connecting capacity building in health management to the need for individual health providers to adapt to changes in the financial incentives of new provider payment systems. As the environment in Kazakhstan allowed implementation of new provider payment systems, ZdravPlus would provide management training for both health authorities and health providers. For example, when Pavlodar Oblast moved forward rapidly on health financing reform, ZdravPlus provided a two week management training seminar for all health authorities and providers in Pavlodar Oblast. In addition, ZdravPlus also worked with the School of Public Health and Center for Economic and Medical of Health Care to develop and institutionalize health management training.

Resource Use Results

Significant results towards USAID Performance Monitoring results were achieved under the Resource Use component, especially in terms of the percentage of total health expenditures in pilot oblasts spent on PHC. PHC funding as a percentage of total health expenditures increased from 12 percent in 2001 to 20 percent in 2004. Overall spending increased dramatically between 2003 and 2004, following the Kazakh government's decision to double health care funding between 2003 and 2005. The growth rate of PHC funding has significantly increased nationally and in most reporting sites exceeds the growth of health care funding in general. The data demonstrates that more money has been allocated to PHC over the years and that PHC funding as a percentage of total health care funding is also increasing (with some variance across oblasts).

The percentage of health facilities paid by new provider payment systems has remained steady at 31 percent since 2002 and includes all 246 health providers in the pilot sites which officially are under new health purchaser systems according to the law on state enterprises. The main focus of recent ZdravPlus work has been at the national level to improve health policy and financing and so the number of pilot sites has not been expanded. Successful pilot sites with oblast-level health financing systems now serve as models for development of a national system, with the expectation that new national provider payment systems will be gradually expanded throughout the country. Other process indicators also show progress, including the number of PHCPs formed (increasing from 473 in 2000 to 583 in 2004), with some year-to-year shifts between oblasts as expansion, reorganization, or consolidation took place. Over the five years of the project, 47 health financing or funds flow products were developed in close collaboration with policymakers and over 6,600 person-days of management training were supported by ZdravPlus focused on new legal and policy topics, and trainings on health information systems, health financing, and provider payment systems. No rationalization plans have been developed in Kazakhstan.

Kyrgyzstan

Health Delivery System Restructuring and Human Resources

As top-down rationalization plans were not being implemented, ZdravPlus engaged in policy dialogue with the MOH to develop a more effective strategy for health delivery system restructuring to continue to increase health system efficiency and shift health sector resources to the PHC level. The MOH decided to include restructuring and rationalization, particularly in the hospital sector, as part of the implementation of the new single-payer system. Because the single-payer system requires pooling of funds, this means that the same pool of funds is available to the health sector notwithstanding changes in the structure of the health delivery system, so the sector is not financially punished for downsizing facilities, making the process of retaining savings from rationalization more transparent. Early results from the single-payer pilot in Issyk-Kul and Chui Oblasts also showed that health providers were beginning to function more autonomously and respond to the financial incentives of the new provider payment systems. Before entering the single-payer system, each rayon developed and approved a restructuring and rationalization plan and individual facilities were provided technical assistance to balance revenues and expenditures, helping to free them both from excessive financial burdens and debts as they entered the single-payer system. Socium Consult provided significant technical assistance to the MOH and MHIF to work in each rayon on developing and implementing restructuring plans in concert with health financing reform and single-payer implementation. Restructuring efforts resulted in reductions in physical infrastructure and a reallocation of savings towards increases in staff salaries and direct patient care such as drugs. Summary results on restructuring and reinvestment of savings are shown in the table below.

Results of Restructuring and Reinvestment of Savings 2001-2004

	2001 Actual	2002 Actual	2003 Actual	2004 Planned	Change 2001-2004	Percent Change 2001-2004
No. of buildings	1,598	921	921	843	755	-47%
Total floor space	804,960	523,019	523,019	477,149	326,711	-40%
No. of total staff	49,371	50,201	51,087	47,639	2,632	-5%
No. of hospital staff	38,615	30,364	28,764	26,243	12,372	-32%
Average salary / month (som)	533	645	754	932	399	+73%
Amount spent on drugs per case (som)	135	157	207	277	142	+105%
No. of treated patients	503,877	465,115	529,206	549,789	45,912	+8%

While much of health delivery system restructuring was driven by the health financing incentives, there were some specific examples of broader or more centrally planned reorganization or restructuring of the health delivery system. One of the dilemmas faced by Kyrgyz health reformers and ZdravPlus has been balancing the objective of creating new, independent PHC practices close to the community, with the difficulty of developing a sustainable management structure and functions for these new, independent, and usually small business entities. Independent PHC practices were thought to be needed because it was difficult or impossible to strengthen PHC and expand the scope of services when control and funds flow was through hospitals or polyclinics that have no vested interest in PHC development. The difficulty of maintaining small FGPs as viable business entities, however, became increasingly obvious. Factors included the difficulty of the MOH, MHIF, MOF, and Treasury System to contract with, set up bank accounts for, and pay large numbers of FGPs, and the difficulty FGPs have in maintaining a practice manager and computerized health information system.

Kyrgyzstan addressed this issue by forming FMCs that do not organizationally report to hospitals or polyclinics, contain a number of affiliated FGPs, and provide centralized administrative services and some specialized health services and diagnostic tests to affiliated FGPs. The population can only enroll in FGPs not FMCs. Overall, FMCs represent a good balance between FGPs becoming autonomous to facilitate development, and a sustainable business and management structure. This refinement or compromise of the initial pilot health reform model facilitated roll-out of the health reforms. The establishment of FMCs has allowed Kyrgyzstan to accelerate the formation of FGPs throughout the country. There are now 740 FGPs in Kyrgyzstan, almost double the number that existed at the end of 2000. The next major issue is determining how outpatient specialists fit within the health delivery system structure. The plan is that most outpatient specialists would become part of hospital outpatient departments so that hospitals and FMCs/FGPs would be the main health delivery system entities. However, this requires a transition, as hospital outpatient departments are still being formed.

Elements of the Single-Payer System

- MHIF established as entity operating the single-payer system
- Payroll tax funds pooled at national level and allocated to Oblast MHIFs
- Budget funds pooled at the oblast level and transferred to the Oblast MHIF
- Oblast MHIF implements unified provider payment systems for health insurance and budget funds to provide consistent financial incentives to providers and realize the purchaser/provider split
- Providers granted more autonomy to allocate resources more efficiently
- A state-guaranteed benefit package including outpatient drug program are specified annually
- Co-payments are specified for the population to increase transparency and reduce informal payments
- Co-payments and "special means" funds are reported as revenue but maintained at the facility level
- Oblast MHIF maintains health information systems to operate the provider payment systems and provide data for a variety of uses including health statistics, quality assurance, policy analysis, monitoring, evaluation, and research
- Oblast MHIF monitors quality indicators stipulated in contracts with health providers

Oblast merged hospitals, consisting of oblast hospitals, dispensaries, and polyclinics united under one management structure, were created to generate management efficiencies and unify rationalization strategies. Combined with the autonomy and incentives in new financing systems, directors of the new merged hospitals began to make decisions based on efficiency and to re-invest the hospital's savings to increase salaries and undertake initiatives to provide high quality, cost-effective services.

Much of the early reform focused on restructuring and strengthening the health delivery system structure. As this task has moved forward and neared completion, the focus has shifted to human resources reorganization and planning over the past few years. ZdravPlus collaborated with the DFID Human Resources Project on initiating the process of human resources planning. The major ZdravPlus role in this collaboration was development and implementation of a human resources database. The human resources database is being implemented oblast by oblast and significant investment is being made to build local capacity to collect, input, and analyze data. The database includes information about all health personnel by type and category. It uses standardized facility lists and staff categories to ensure that over time it can be integrated with other databases, such as the continuous medical education tracking database. Human resources development, including workforce planning and medical education reform, is a major next generation activity and is prioritized in Manas Taalimi.

Health Financing

Single-Payer System

Kyrgyzstan has achieved remarkable success in implementing health financing reforms over the past ten years, creating a health financing model with world-wide relevance known as the single-payer system. First ZdravReform and then ZdravPlus have been actively involved in providing technical assistance to the process, starting in Issyk-Kul Oblast in 1994 where many of the new health financing principles, mechanisms, and interventions were introduced and tested and then

actively supporting the continued design, development, deepening, and step-by-step national roll-out of the single-payer model. The resulting system is a remarkably sophisticated, continuously evolving health financing system that has distributed resources more equitably, helped downsize the service delivery structure and shift resources to PHC, generated significant efficiencies, and introduced incentives to improve PHC utilization, quality of care, and responsiveness of the health system to the population's health needs. The single-payer system can largely be credited with creating an impetus for behavior change in the areas of reducing hospital overcapacity, reinvesting savings, and increasing resources available at the PHC level.

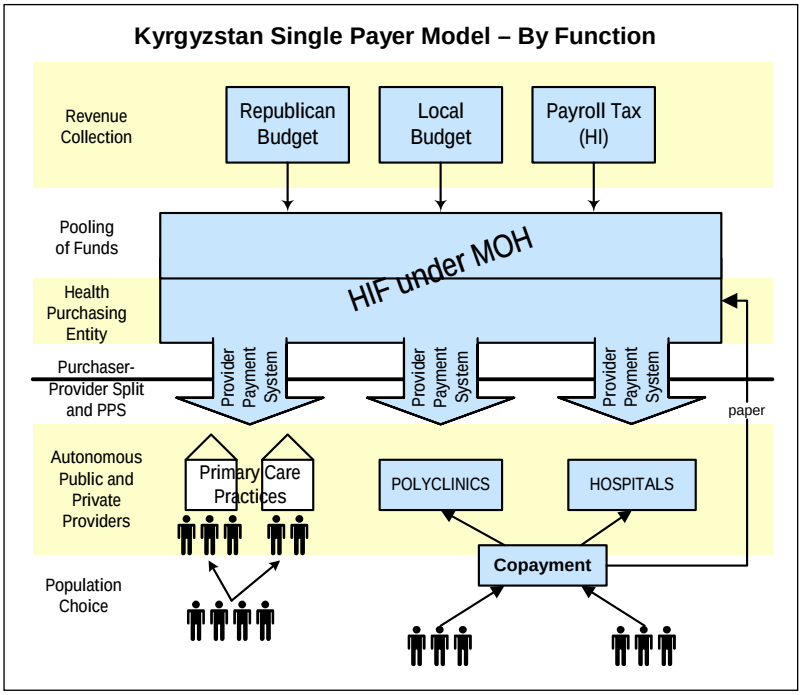
Health financing reforms and the creation of the single-payer system happened in stages over a period of ten years. The first stage (1995-97) was the initial pilot process in Issyk-Kul Oblast that developed the internal workings or "engine" of the health financing reform process and began to address key technical issues at the core of the system. Initial health financing reform interventions included establishing an oblast-level health purchaser, developing a per capita payment system for independent FGPs and a case-based payment system for hospitals, allowing the population to choose their FGP, creating new health information systems and accounting systems, and gradually increasing autonomy and management capacity of health facilities.

The second stage (1997-2000) involved creating and building capacity in a national Mandatory Health Insurance Fund (based on the Issyk-Kul experience) that implemented national pooling and provider payment systems using payroll tax money (a 2 percent payroll contribution from employers). The new incentives in the MHIF provider payment systems gave health providers more autonomy and resulted in some initial restructuring. However, the majority of facility funding continued to come from the budget, flowing through old input-based, line-item payment systems. The two systems created conflicting incentives for health providers who would lose budget funds if they restructured or downsized. Because payroll tax money was a relatively small proportion of the facility's total budget, not much restructuring was done.

The third stage of health financing reform (2000-01) addressed this problem by merging the two sources of financing into one system, creating the single-payer system. All funds (payroll tax, republican budget, and local budget) were pooled at the oblast level in the MHIF and distributed using the same provider payment systems for FGPs and hospitals. In the new system, city, rayon, and oblast health care funds were pooled at the oblast level, merging those facilities' budgets and replacing the previous system of multiple, fragmented, and overlapping budgets. The oblast MHIF also purchased services from these pooled funds for the entire oblast population using the same methods as used nationally for insured persons, thus becoming the single purchaser of health care in the oblast. This provided for a more equitable allocation of health care resources across geographic areas, an ability to plan a realistic health care budget, and the eventual elimination of the duplicative system of health care facilities. Consistent incentives through a unified provider payment system was paired with extensive work with each health care facility to develop a restructuring and rationalization plan that would match facility revenues to expenses and take advantage of the facility's new ability to reinvest savings. The combination of the incentives embedded in the payment systems and a provider-level restructuring exercise resulted in much more significant restructuring and rationalization than any previous attempts at top-down rationalization. This third stage of health financing reform is in essence a functional approach; the health financing functions are shown in the chart below.

The fourth stage of reform (2001-04) solidified the elements of the single-payer system (it's "engine") and repackaged the system to respond to consumers and patients, creating a state-guaranteed benefits package, introducing co-payments, and developing an outpatient drug benefit program (described in detail below), adding a "chassis" to the health financing reform engine. Co-payments and so-called "special means" funds are reported to and accounted for at the oblast level as facility revenue, but actual funds are retained at the facility level, providing an additional source of funds to be used at the facility's discretion to improve provider performance and

increase quality of care. The MHIF also introduced quality assurance systems with indicators embedded in contracts with health facilities, ensuring fiscal responsibility, control, and management of funds by routinely monitoring quality of care provided in a sample of facilities. As shown in the timetable below, the single-payer system was piloted in Issyk-Kul and Chui oblasts in 2000-01 with a plan to roll out the system step-by-step to two additional oblasts each year.



Implementation of the single-payer system in Issyk-Kul and Chui Oblasts in 2000-01, and the culmination of significant preparatory work prior to 2000, resulted in 30 percent reductions in the number of buildings, 30 percent reductions in the number of beds, significant reductions in the number of staff (13 percent in Issyk-Kul, 18 percent in Chui), and increases in staff salaries (20 percent in Issyk-Kul and 35 percent in Chui). Funds spent for direct patient (variable) costs doubled in both oblasts, while expenditures on drugs increased 93 percent in Chui and 170 percent in Issyk-Kul. These impressive results convinced President Askar Akaev to endorse their replication on October 16, 2001: "Success of the Issyk-Kul and Chui Oblast pilots in implementing new methods of health financing, including co-payment mechanisms [have] led to a sharp decrease in corruption in health care facilities, as well as an increase in revenues that allow for improvements in the quality of care. These new, positively tested methods of health care organization should be spread countrywide."

ZdravPlus worked with the MHIF to continuously increase its implementation capacity. Roll-out of the single-payer system to each new oblast began with intensive efforts to educate oblast and rayon government and finance authorities, build capacity in oblast MHIFs, and work with each provider to rationalize and restructure to better align facility revenues with expenditures. By mid-2002, the single-payer system had been extended to two more oblasts (Naryn and Talas), covering 50 percent of the territory and 33 percent of the population of the country at the time. By 2004, the whole country was covered by the single-payer system. The outpatient drug benefit program (Additional Drug Program) was piloted in Bishkek City in 2001 and then rolled out as an integral part of the single-payer system.

Implementation in Osh Oblast (including Osh City) and Bishkek City are ongoing due to their size and the complicated nature of their health delivery structures. Early in the process of implementation a new multiple year, step-by-step implementation plan was developed for South Kyrgyzstan and Bishkek City, laying out all the steps in the process and ensuring that Government expectations about the pace of reform did not outstrip the technical and operational potential of local institutions to implement reform. Implementation in Osh proved difficult because of its size, issues in separating Osh City from Osh Oblast when Osh City was designated as its own administrative unit, initial health service delivery reforms had not taken hold, and the local administration was not initially viewed as supportive of health reforms. Nevertheless, implementation of the single-payer system is moving forward. In Bishkek City, implementation

was slowed down by the inability to agree on a single payer and an inability to pool funds across republican and city facilities in order to restructure as well as redistribute resources to other oblasts. In early 2003, the mayor of Bishkek agreed to a single payer embodied in the Bishkek Territorial MHIF and a joint MOH/MOF decree temporarily allowed republican funds for 8 of 11 major republican institutes to be transferred to the Bishkek MHIF, essentially pooling health care resources for Bishkek and allowing payment of the majority of health facilities in Bishkek under new provider payment systems.

Timetable for Rolling Out Health Financing Reforms in Kyrgyzstan

Single-Payer System Implementation	Health Financing (pooling, provider payment systems, accounting systems)	Basic Benefit Package and Co-payments	Outpatient Drug Benefit
Issyk-Kul Oblast	2000-2001 (pilot)	2001	2001
Chui Oblast	2000-2001 (pilot)	2001	2001
Naryn Oblast	2002	2002	2002
Talas Oblast	2002	2002	2002
Batken Oblast	2003	2003	2003
Jalal-Abad Oblast	2003	2003	2003
Osh Oblast	2004 (partial)	2004	2004
Bishkek City	2004 (partial)	2004	2001 (pilot)

Establishing the legal framework for the single-payer required the most extensive legal and regulatory changes made to date in the Kyrgyz health reform process. Amendments were developed and approved to the Law on Budget, Law on Self-Governance, Law on the Social Insurance Fund Budget, and many other laws or regulations governing the flow of budget funds. New Government, MOF, and MOH decrees were developed and approved on the implementation of new funding mechanisms for health facilities. In addition, a large number of oblast-level regulations were developed and approved in Issyk-Kul and Chui to establish the legal framework for the single-payer in these oblasts. The single-payer system was formally codified in amendments to the Health Insurance Law and in the Law on the Single-Payer System of July 2003.

Significant efforts by MHIF and ZdravPlus went into preparing the oblast MHIFs, health care providers, local governments, and rayon administrations, finance departments, and treasury systems on the single-payer system. This significant investment in training has contributed to all stakeholders developing a good understanding and taking ownership of the new system, and was key to the successful roll-out of reforms. ZdravPlus also helped to continuously increase the capacity of the MHIF itself, in design, implementation, and monitoring of the new health financing system. Significant technical input has facilitated intense joint work to improve budget formation each year, development of annual state-guaranteed benefits packages and setting of annual rates for provider payment systems, monitoring all aspects of the system including funds flow and continued provider restructuring, and implementation and refinement of health information systems and new accounting systems. Significant efforts have been devoted each year to improve the budget process, despite reluctance from the MOF, and move from input-based to output-based or program budgets.

An enormous amount of time and effort by Kyrgyz counterparts and ZdravPlus experts has been expended to ensure successful implementation of the single-payer system over the past five years. Even more impressive is the progress that has been made despite a number of broader political and economic challenges in Kyrgyzstan. Political instability and the resignation of the government after protestors were killed in Ak-Sy, and also perhaps the success of the health reforms, led to a political backlash against reform in 2002. Substantial donor interaction with the Government and President, over a period of six months, work with the Legislative Assembly to

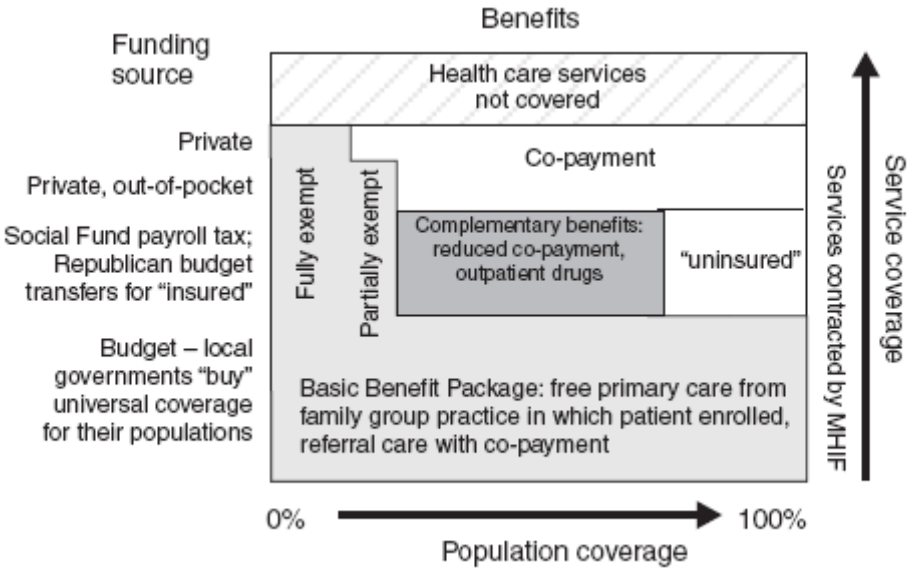
develop a long-term legal framework for reforms, and agreement on a slower timeframe for implementation of health financing reform ultimately resulted in a reaffirmation of support for health reforms. Around the same time, the Social Insurance Fund decided not to transfer the health insurance payroll tax to the MHIF, even though numerous laws, regulations, and decrees required it. This undermined the financial viability of the health insurance system and the entire single-payer system. Fears were raised about the population losing confidence in the system, as the net result would be to put pressure on the formal co-payment system and reintroduce informal payments to make up for the gap in funding. Again, policy dialogue, a unified donor position, and consistent pressure on the SIF led to a new January 2003 regulation ensuring transfer of SIF funds to MHIF being included as an IMF conditionality related to the Poverty Reduction Strategy. Similar issues arose when the MOF began to reduce the health sector budget due to a bad economic situation, the increased efficiency of the health sector and need to allocate resources to less efficient sectors, and a perception by the MOF that co-payments added "new money" to the health system. While this issue has not been resolved, it remains the topic of high-level policy dialogue and will continue to be addressed through Manas Taalimi and the SWAp process.

Overall, much work remains to be done to complete comprehensive roll-out and implementation of the single-payer system, especially in Osh and Bishkek, and to continuously refine the system and increase the capacity of system administrators and health facilities to operate within it. Future plans for health finance reforms include:

- Ensuring uninterrupted and sustainable financing of health care from the state budget to provide quality health services and reduce co-payment levels;
- Transitioning gradually to program budgeting and reporting by programs;
- Equitable redistribution of financial resources across the country and among health facilities through national pooling in 2006;
- Development of coefficients for rural providers based on geographical, socioeconomic, and age-gender characteristics
- Development of a bonus system to motivate providers that achieve improvements in the health indicators of their population; and
- Development of new provider payment methods for specialized health facilities and public health providers.

Basic Benefits Package and Co-Payments

After putting together all the core or functional health financing elements in the single-payer system and it was possible to match provider payments to specific services, the time had come to specify what services would be funded. ZdravPlus worked closely with the MOH and MHIF to develop a basic benefits package that would include both state-guaranteed (free) benefits as well as services requiring population co-payments. The clearly defined package of health care benefits was first developed by the Government and piloted in Issyk-Kul and Chui oblasts in 2001 in the form of a State Benefits Package. The package specifies the benefits, cost-sharing obligations and coverage of the population and is primarily based on planned health financing levels. The State Benefits Package is annually approved by the Government on the basis of expected revenues of the oblast and the national pools of funds managed by the MHIF, and according to projected levels of utilization and other parameters. Over time, coverage of services and target populations, such as farmers, refugees, and children, under the State Benefits Package has steadily increased. Funding and coverage under the State Benefits Package is displayed in the figure below.



Despite significant changes in the health financing system and restructuring of the health care delivery system in Kyrgyzstan, the cost of providing health care still exceeded the health care budget. Health care worker salaries remained unrealistically low, and the post-Soviet tradition of charging informal payments for services persisted. In response, the MOH and MHIF, with technical assistance from ZdravPlus and WHO/DFID HPAP, formalized the co-payments the population needed to pay for health services as part of specifying the State Benefits Package. One of the major objectives of the new co-payment policy was to mitigate individual financial risk and increase transparency by allowing patients to know the amount they had to pay before obtaining services.

Co-payment levels were discussed and debated with technical experts wanting to specify a large number of co-payment categories to match what people actually owed, and policy experts recommending fewer categories, cross-subsidization from less sick to more sick (which is often rich to poor), and keeping co-payment policies simple and clear so they were easily understood by the population. In the end a simple schedule of co-payments was developed for outpatient specialty and inpatient care, while PHC remained free. Health providers keep and allocate the co-payments at the facility level, but are required to submit financial reports to the MHIF which incorporates the level of co-payments into rate-setting. Guidelines for use of co-payments stipulate that 20 percent may be used to increase salaries, including social contributions; 60 percent may be allocated to the purchase of drugs, medical supplies, and laboratory and diagnostic tests; and 20 percent may be used for the purchase of additional food, disinfectants and detergents, paper forms, bank fees, and other support services.

In Issyk-Kul Oblast, monitoring efforts in 2001-02 demonstrated that:

- Financial incentives in the new provider payment systems, health delivery system restructuring, increased autonomy for health providers, and the co-payment policy resulted in an average increase of 20 percent in health worker salaries;
- Informal payments for drugs and supplies decreased by 92 percent;
- Informal payments to staff decreased by 66 percent;
- Forty-six percent of patients knew what they had to pay in advance, compared with 15 percent of patients before co-payments were introduced; and
- Patients expressed satisfaction with the system, exemplified by the following quote: "The situation is better now. The payment is official and I was aware of it before I came. Plus, I'm getting all the drugs I need and I don't have to go to the pharmacy myself to get them. It's all included."

As discussed in other sections of the report, the MOF response was to reduce the health care budget. This political issue combined with the implementation and improvement of the State Benefits Package and specification of co-payments led to ongoing efforts to develop a method of costing the requirements for the State Benefits Package rather than fitting the annual Package to available health sector resources. This process was begun in 2004 with the specification of "minimum standards" of funding for each type of service, equalizing standards across oblasts and gradually moving funding levels up to a national standard based on average expenditures in Bishkek. More work is needed on the calculations and connection to the overall budget formation process and is planned as part of Manas Taalimi and implementation of the SWAp.

Additional Drug Program

ZdravPlus provided technical assistance to the MOH and MHIF to introduce a new outpatient drug benefit package – called the Additional Drug Program (ADP). It was first tested in Bishkek City in 2001 then rolled out nationally through the implementation of the single-payer system. The ADP is an example of "intelligent" health purchasing. The MOH knew that it had to reduce hospital admissions and capacity to adapt to the collapse of health sector funding. They also knew that many patients only go to the hospital to get drugs. So, they introduced the outpatient drug benefit to improve patient access to necessary drugs and expand services provided by FGPs, while also reducing hospital admissions. Other objectives embedded in the ADP included improving quality by linking prescribing to new clinical practice guidelines and reducing the cost of outpatient drugs for beneficiaries. The ADP covers a limited list of prescribed items targeting four causes of avoidable hospitalization for which clinical practice guidelines were developed and requires prescribing by generic name. The MHIF contracts with qualifying private pharmacies and then patients pay the difference between the reimbursement rate and the retail price.

After introduction of the ADP, the population changed how they accessed the health delivery system. For instance, in Issyk-Kul Oblast after its introduction, visits to FGPs increased by 6 percent, emergency cases decreased by 38 percent, and there was a 22 percent decrease in referrals to hospitals for PHC sensitive conditions (asthma, hypertension, anemia, ulcers). Research showed that patients were very satisfied with the new outpatient drug benefit and receiving necessary medication at reduced prices – an elderly pensioner stated, "My pension is very small and this program allows me to have the necessary medications at a reduced price." In addition to increased utilization of PHC and reduced hospital referrals and admissions, the ADP also has resulted in more of the population being insured and increased availability of drugs at the FGPs level. The reference price reimbursement system combined with co-payment for medicines has increased competition between pharmacies and substantially decreased retail prices.

Accounting and Financial Management

While the old Soviet accounting system was basically functional for the health sector, improvements in the accounting and financial reporting systems were necessary to implement the single-payer system. ZdravPlus provided technical assistance through Socium Consult to a Working Group consisting of MOH and MHIF accountants and finance staff to develop a new chart of accounts and other improvements to the old accounting system. This work has been done in collaboration with the MOF. A package of training materials was developed and tested in Chui Oblast and then the new chart of accounts and other accounting systems were introduced throughout the country through a series of training seminars in each oblast.

One of the more critical issues arising in the implementation of the single-payer system relates to accounting and financial reporting systems. Payroll tax funds for health insurance are pooled at the oblast level and distributed to providers through new provider payment systems. Budget funds are also now pooled at the oblast level, transferred to the Oblast MHIF, and distributed through new provider payment systems. However, providers still are not able to pool the funds at the

provider level or manage all funds through one accounting and financial reporting system. They must maintain four separate bank accounts (in a bank or in the Treasury System) and four separate accounting systems and financial reports – health insurance funds, budget funds, special means funds (from other income such as selling produce), and co-payment funds. ZdravPlus through Socium Consult, provided continuous technical assistance over the life of the project to address this issue and to support establishment of one bank account and accounting system for health providers.

The MOH was successful in obtaining approval from the MOF to allow health providers to maintain all funds in one bank account outside the Treasury System. The opening of this bank account would take place on a provider-by-provider basis, triggered by a letter from the MOH to the MOF when a health provider is ready to open a bank account. This case-by-case system is used because there are many pre-conditions that must be met before opening this bank account. One of the most important pre-conditions relates to the level of debt of the health provider. Creditors cannot garnish money from a Treasury System account, but they can from a bank account outside the Treasury System. Therefore, it is imperative that the rationalization and restructuring process take place and all health provider debt is removed before the bank account is opened. Then, the health provider has true management autonomy – authority to allocate its resources and responsibility for resource management including debt.

Health Information Systems (HIS)

The ZdravReform Project started work in HIS by connecting hospital payment to a hospital clinical information database and PHC per capita payment to a population database. An outpatient clinical information system, based on a patient encounter form was also piloted in Issyk-Kul Oblast and slowly expanded, even though development of such a system has proved difficult due to the high volume of visits and low capacity at the PHC level. In early 2001, ZdravPlus worked with the MOH, MHIF, and the Republican Medical Information Center (RMIC) to redefine roles and responsibilities to begin to institutionalize many of the health information systems that had been designed and developed under ZdravReform, and to move toward a more comprehensive HIS. The MHIF and RMIC assumed responsibility for system support and maintenance of existing systems, while ZdravPlus continued to provide technical assistance in design of the evolving system and initial testing and implementation of new elements of the HIS. In early 2002, the RMIC moved to the MHIF to continue integrating systems and clarifying MOH, MHIF, and RMIC organizational structure and staff roles.

ZdravPlus provided technical support in initial system design, including development of HIS work plans and computer procurement specifications planned under the World Bank Health II Project, and to develop a national HIS concept. ZdravPlus technical specialists participated in HIS Working Group discussions to design and develop HIS interventions and refinements, and to develop and introduce data standards. The Project also provided technical assistance to all elements of the HIS – the Social Insurance Fund database, population database, hospital database, outpatient database, personnel database, cost accounting database, and Additional Drug Program database. The population database has been continuously refined and is used annually to develop PHC budgets under the per capita payment system. The outpatient CIS has been further linked to the population database and Additional Drug Program database, in pilot facilities in Bishkek City to better connect it to provider payment, make completing forms easier, and allow FGPs to analyze utilization patterns at the population level. The hospital database has also been refined and expanded, with an accounting module added to improve financial management at the facility level.

Development of reference databases and lists, for instance of all health facilities in Kyrgyzstan, helped increase consistency and accuracy in reporting and ensure that integration and standardization of all databases is possible in the future. Better linking and integration of the

databases, especially at the outpatient level, has begun. The Project has helped RMIC to improve different statistical forms from the facility, oblast, and republican level and to publish annual statistical reports, with an eye to improving routine statistical reporting. ZdravPlus also supported the HIC to train providers and health workers to improve their capacity to analyze and use data, introduce ICD-10 coding systems, and develop reference manuals for providers (for instance on death registration and life, birth, and death criteria). ZdravPlus also provided oblast-level support to continue to implement the HIS at Oblast MICs, Oblast MHIFs, and oblast providers, a very time, labor, and resource consuming activity but essential to the development and institutionalization of the health reforms. Oblast MHIFs are now submitting data electronically to the Republican-level MHIF. The Hospital Association and FGPA also assumed increasing responsibility for maintenance of provider-level HIS, as part of the services they provide to their members.

ZdravPlus provided technical assistance in the overall structure and connectivity of the HIS and the development of counterpart websites. The Central Information Portal is currently linked to the MHIF, RMIC, and the MOH's Health Reform Department through a high speed DSL connection. The MOH is also connected on a slower line. Current capacity of the Portal remains limited as available information must be limited to file data on Access format. In addition to the portal, websites have been created for the MOH, MHIF, and Pharmaceuticals Department. These websites were designed to be user-friendly, and to enable website managers to easily update, expand, and delete content on the site as necessary.

Health Management

Increased management capacity is necessary at all levels of the health system from FGPs up to the MOH. ZdravPlus focused on building management capacity at the provider level to adapt to incentives of the new health financing system. In 2001, educational institutions did not yet have the ability to develop or implement health management training, so a series of courses was developed under the MOH through a collaboration of the World Bank Health II Project, WHO/DFID HPAP, and ZdravPlus. The MOH decided not to set up a juridical entity so as not to interfere with long-term health management education in the Medical Academy and other educational institutions. ZdravPlus provided a consultant to help organize and develop the courses, some furniture and equipment to provide a physical location for the training, guest lectures for the health management training, and limited operational support. Management training started in early 2002.

The training for health facility managers focused on increasing awareness of the health reforms, allowing them to adapt to the incentives of the single-payer system (including new provider payment systems), and managing given greater autonomy. The two-week course includes eleven modules: 1) health system policy, planning, analysis, and evaluation; 2) health economics and financing; 3) public health; 4) health system restructuring; 5) health quality; 6) health information systems, statistics, and epidemiology; 7) principles of management and control; 8) legal aspects of the health system; 9) human resources management; 10) role of NGOs in health development; 11) SES reform, health promotion, and public health management. Eight hours of training also was incorporated into the four-month PHC physician retraining focusing on management and financing in family medicine.

The health management courses have proved to be very popular and successful. Participants are competitively selected and there was often a long waiting list. Training has been conducted for 169 people, including health leaders and head doctors from the Ministry of Health, Republican and Oblast MHIFs, Family Medicine Centers, Oblast and Rayon Hospitals, and others. The demand was related to interest in health reforms as well as the fact that the new Law on Health Protection requires health facility mangers to be certified in health management. Participant fees are charged, adding to the sustainability of the courses.

Building on the success of the health management courses, a regional center for the World Bank Flagship Course on Health Reform and Health Financing was established in Kyrgyzstan, and two two-week courses were provided in October 2004 and May 2005 to 99 participants from throughout the former Soviet Union. High-level health sector representatives and health system managers from Armenia, Azerbaijan, Georgia, Kyrgyzstan, Kazakhstan, Moldova, Tajikistan and Uzbekistan participated in the courses. Through course evaluations, participants expressed their satisfaction with course design and delivery, with the second Flagship course receiving a higher rating on all measures of participant satisfaction than the first course and than the average of all World Bank Institute courses provided in 2004. ZdravPlus provided guest lectures and organizational support to both courses. Toward the end of the project, ZdravPlus collaborated with WHO/DFID HPAP to begin working with the MOH to develop and implement a strategy for institutionalization of the both health management and Flagship courses.

Resource Use Results

Significant results were achieved towards USAID Performance Monitoring Plan results under the Resource Use component, especially in terms of the percentage of total health expenditures in pilot oblasts spent on PHC and the number of facilities included in new provider payment systems. PHC funding as a percentage of total health expenditures increased from 24 percent in 2001 to 33 percent in 2004. This is a major success as it shows that the structural approach of implementing health financing reforms and provider payment systems step-by-step has led to increased autonomy and efficiency in the core of the health system structures, enabling increased spending on PHC. It should also be noted that the increased PHC spending comes primarily from the insurance budget, meaning that more resources are allocated to PHC from the MHIF than from the general budget (52 percent versus 28 percent in 2004).

The percentage of total health facilities paid by new provider payment systems has nearly tripled from 17 percent in 2001 to 46 percent in 2004. In real terms this means that by 2004, 384 FGPs and 153 hospitals were financed by new health purchaser systems, demonstrating the continued success and roll-out of system reforms. Other process indicators also show progress including the number of PHCPs formed (increasing from 409 in 2000 to 708 in 2004) and the number of rayons with approved rationalization plans, climbing from 14 in 2001 to 41 in 2004. Over the five years of the project, 51 health financing or funds flow products were developed in close collaboration with policymakers. In addition, ZdravPlus has provided or supported over 41,500 person-days in training on management and financing topics.

Tajikistan

Health Financing and Restructuring Health Delivery System

In Tajikistan, comprehensive restructuring of the PHC sector has not yet occurred. There has been some renovation and equipping of rural PHC centers in the two World Bank pilots of Dangara and Varzob Rayons. The Republican Family Medicine Training Center (FMTC) in Polyclinic #8 as well as oblast FMTCs are both service delivery and training centers. Over the last year, health finance reform planning has driven discussion on rayon level PHC structure. As of the end of ZdravPlus, the likely decision will be to not establish rural PHC centers as independent juridical entities largely due to poor capacity in PHC and extremely low level of public health funding. A Central Rayon Hospital Deputy could be appointed to serve as PHC network manager. Policy dialogue on the structure of rural PHC will continue with a decision required in order to strengthen rural PHC and implement a capitated rate payment system.

In health financing, the initial ZdravPlus strategy was to collaborate with the World Bank Health Reform Project and Tajik partners to implement a capitated rate payment system in the two pilot rayons of Dangara and Varzob. However, as discussed in the Institutional Structure, Roles, and Relationships section, establishing a rayon level health purchaser is not optimal conceptually or technically. In addition, lack of capacity and a step-by-step implementation plan made it difficult to move forward on capitated rate payment. ZdravPlus also provided some technical assistance to pilot rayon rationalization plans required by the World Bank Project, however, there is a greater need for rationalization at the oblast level than the rayon level and it's hard to move forward with rationalization and restructuring of the hospital sector without corresponding changes in hospital payment systems.

A referendum passed in June 2003 led to a change in the Constitution, legalizing population co-payments or paid services for health care. This opened the door for broader health financing reform. Minister of Health Faizulloev, appointed in January 2003, also desired broader health financing policy dialogue and the Government also became interested in starting health insurance. ZdravPlus supported the MOH in creation of a Health Financing Working Group (HFWG) and took the lead in providing technical assistance and supporting their ongoing work. The HFWG included key policy officials and relevant technical personnel from the MOH, Ministry of Finance, Ministry of Economics and Trade, Ministry of Social Protection, the Anti-Monopoly Agency, representatives from each oblast, and Dushanbe City. The intersectoral nature of the working group was one of the keys to effective health finance strategy development in Tajikistan. The MOH quickly realized that without the support and active assistance of these organizations, they would have trouble implementing health financing reforms. Having representatives of various stakeholders collaborating from the very beginning means that these participants not only have a say in the process, but also a vested interest in seeing health finance reform succeed.

One of the first steps in supporting the HFWG was to organize a summer 2003 study tour for the working group members to visit Kyrgyzstan to observe and learn from their experience in health financing reform. Tajikistan and Kyrgyzstan share many similar conditions and challenges in addressing health financing issues, including an economic collapse and greatly reduced state budget for the health sector, high out-of-pocket payments by the population, a largely rural/remote population, and a health system mainly focused on costly inpatient care. In addition to portraying the broad concepts, technical methodologies, and implementation steps of the Kyrgyz health financing reforms, the study tour also gave the HFWG members a better understanding of the issues and challenges facing the MOH and the roles and responsibilities that the MOH and various other ministries and agencies have in the development and implementation of health financing reforms. This study tour was followed by a HFWG retreat at which ZdravPlus assisted the members in creating a framework serving as the foundation for a new health financing strategy. Extensive dialogue fostered a sense of ownership and intersectoral collaboration among HFWG

members as they continued discussion of policy, legal, and technical issues and produced a draft health financing strategy in early 2004.

After more than a year of discussion at all levels of Government, the Health Financing Strategy was approved by the President in May 2005. It states that public financing for health will be increased over time, directs the creation of an oblast level health purchaser with health budget funds pooled at the oblast level, clarifies roles and relationships of different stakeholders in health financing, directs implementation of new provider payment systems to increase efficiency in the health sector, and recognizes the importance of strengthening PHC. Following the approval of the Health Financing Strategy, ZdravPlus began engaging in dialogue with the HFWG and other donors/projects on development of a strategy and plan to drive implementation of the Health Financing Strategy.

Health Information Systems

In Tajikistan, ZdravPlus worked with the MOH Health Statistics Department on two specific technical activities – hospital clinical information and cost accounting systems and PHC information systems. Implementing a new case-based hospital payment system is one element of the approved Health Finance Strategy. An automated hospital clinical information system and cost accounting data are required to design and develop a new case-based hospital payment system, operate the hospital payment system, and enable hospitals to better manage resources and provision of health services to the population. The clinical information system converts the current manual statistics reporting system to an electronic system. Very few changes are made to the manual reporting systems and it is quickly accepted by hospitals as it helps improve their information system and reporting. In addition, the electronic data generated is used to create the clinical groups for the new hospital payment system. This process has already been successfully implemented in Kazakhstan and Kyrgyzstan.

Concerning cost accounting, in Tajikistan hospital costs are aggregated at the facility level, making it impossible to determine the costs of individual units of service. With the cost accounting system developed by ZdravPlus, it is possible for hospitals to enter detailed budget and costs information broken down by department and by unit expenditures in order to determine actual service unit costs. This can then be linked to the specific clinical cases entered into the clinical case database. This data collection must take place in a number of hospitals in order to get an accurate reflection of costs for various cases. The cost accounting and clinical information system data is then used to design and develop the case classification and reimbursement rates for a new case-based hospital payment system.

In addition to using these two integrated information systems to develop the initial case-based hospital payment system, in the future, the clinical information system becomes both an improved health statistics system and the billing system used by the hospitals to obtain payment from the health purchaser. The cost accounting system can also be used to help health facilities manage and allocate resources better under the new provider payment system. ZdravPlus has worked with partners in Tajikistan to initiate implementation of these two information systems in sixteen hospitals largely in Khatlon Oblast. At this point, total of about 70,000 cases have been entered into the clinical database from selected pilot districts.

On PHC information systems, the World Bank Health Reform Project pilot rayons developed and implemented patient level PHC information systems. ZdravPlus worked with the MOH Health Statistics Department to create reports from this new PHC information system. Finally, ZdravPlus provided training seminars to support partners in implementation of ICD-10.

Health Management

In Tajikistan, as new provider payment systems are not yet implemented and ZdravPlus did not initiate extensive health management training. Experience has shown that management training is most effective when hospitals need new knowledge, tools, and skills to adapt to the different financial incentives and autonomy inherent in the new provider payment systems. However, to start building a foundation basic management principles were included in training educating health authorities and health professionals about the purpose and plans for reform.

Resource Use Results

Significant results towards the USAID Performance Monitoring Results were achieved in Tajikistan under the resource use component. Although new provider payment systems have not been implemented in hospitals or PHCPs in Tajikistan yet, preparatory work has begun to collect and analyze the information needed to develop a case-based inpatient provider payment system, including data on hospital expenditures by department and the number of clinical cases treated. This information will inform the calculation of actual service unit costs to help set the appropriate level or rate of reimbursement for various hospital diagnostic cases. In the future, the clinical information and billing system will be used to submit the number of treated cases to be reimbursed by the case based payment system. In 2003, two hospitals began collecting cost accounting information and linking it to new clinical information systems. The number of cases in the database increased from 3,230 in 2003 to 38,332 in 2004.

Since 2001, ZdravPlus has provided more than 6,700 person-days of management training, on topics such as health management, health financing, health information systems, monitoring and evaluation, and rational pharmaceutical management.

Turkmenistan

Very limited technical assistance and training was provided under the Resource Use Component although by the end of the project opportunities were arising for policy dialogue on health financing and health insurance. ZdravPlus contributed to organization of an AIHA-funded study tour for officials from Turkmenistan to Canada and the U.S. to observe their health care systems and health financing mechanisms. Following this study tour, WHO and ZdravPlus co-sponsored a health financing roundtable to discuss the health systems in Canada and the U.S. and their relevance to the Turkmenistan environment. This roundtable resulted in general agreement about the role of heath insurance, the need to pool funds to increase equity, and the need for new provider payment systems to increase efficiency.

Uzbekistan

Health Financing and Restructuring Health Delivery System

In Uzbekistan, the focus of ZdravPlus technical assistance on health care financing was to design, pilot, refine, and roll-out new systems for the SVPs allowing them allocation of an increased share of the health budget, connecting provider payment systems to the people served rather than facility infrastructure or inputs, and provide incentives and motivation to the SVPs to better address client needs. The financial and management reforms were perceived as necessary conditions to facilitate gradual attainment of the sufficient conditions resulting in an overall change in the medical practices of the providers and health status of the rural populations.

Uzbekistan's rural PHC model for financing reforms consisted of the following key elements:

- Establishment of SVPs as independent legal entities with their own budgets and bank accounts;
- Pooling of rayon rural PHC funds at the oblast level;
- Allocation of the pooled funds among the legally independent rural PHC facilities on the basis of a unified capitation rate set by each oblast and adjusted for sex-age and size of the populations served by each PHC facility as well as special geographic characteristics (for example, remote SVPs in Navoiy Oblast);
- Increased financial autonomy of the reformed PHC rural facilities in:
  - Planning/using their individual budgets within a per capita ceiling; and
  - Retaining/reinvesting the savings for facility and service development.

From 2000-2002, ZdravPlus provided extensive technical assistance and operational support for implementation of all these health financing elements in the three pilot rayons. As Ferghana Oblast was the lead pilot oblast, the finance reforms were initially tested there and then extended to the three pilot rayons in Navoiy and Sirdaryo Oblasts (see table below for schedule). Support was provided to prepare all required documentation to register SVP's as independent legal entities with their own budgets and bank accounts. ZdravPlus staff worked closely with the WB Health I National and Oblast Project Implementation Bureaus (PIB), MOH and MOF, and OHD and Oblast Finance Department (OFD) to determine and implement the mechanisms and rules required to pool all rayon rural PHC funds at the oblast level. Developing the capitated rate payment system required data collection, analysis, methodological development, and calculation of rates. ZdravPlus provided technical assistance for the analysis required to determine the age/sex adjustors which were intended to help ensure that the capitated rates paid for different categories of the population were fair and closely matched actual health expenditures. Support was also provided to establish the overall budget for PHC, calculate the capitated rates, and determine the exact funds flow processes to each SVP including when they were paid and how the funds were received.

ZdravPlus also provided technical assistance to the SVPs in developing their individual budgets under the capitated rate payment system. In the past, health authorities would develop provider budgets, now the SVPs started to develop their own budgets. Although a budget line item or economic classification system is still in use in Uzbekistan and the SVPs couldn't receive one lump sum payment, the MOF economic classification system is the most flexible of all the countries in Central Asia and allowed the SVPs to develop greater financial autonomy. There are four budget line items or economic classifications consisting of salaries, social taxes, capital, and other operating costs. As almost all variable costs for SVPs (supplies, travel, drugs, etc.) and some fixed costs such as utilities were included in other operating costs, in effect the SVPs had substantial autonomy. Concerning reinvestment of savings which is critical to enhancing incentives for efficiency, the SVPs were allowed to roll-over savings quarterly into a facility

development account and they had substantial autonomy in determining how to allocate these savings.

Although the pilots started slowly and there was initial reluctance to accept the health financing and management reforms on the part of Uzbek stakeholders, the process of step-by-step implementation along with the demonstrated successes resulted in increased ownership of the model and greater momentum to the pilots. For example, one of the early issues was that SVPs were not used to financial autonomy, were afraid of the ramifications, and did not spend the funds they now had autonomy to manage. Over time, as they began to understand the purpose of the reforms and believe they really did have autonomy, they built capacity to budget and use the capitated rate payment to provide better services to their populations. This operational experience led to identification and solution of problems and step-by-step refinement of the finance model. Examples include:

- Refinement of the capitated rate payment system formula – it became clear that remote rural SVPs were under-funded as they served fewer people (less capitated rate payment) in areas with low population density. However, close to the same level of capacity was needed to serve these populations as was required in higher population density areas. So, the capitated rate formula was revised to add a geographic density adjustor which increased the capitated rate payment for SVPs in very remote rural areas.
- For SVPs to have real autonomy under the capitated rate payment system, they must be certain of the timing and amount of their payments. Finance authorities would often pay late or pay less than the predetermined amount. Due to intense dialogue and technical assistance the situation improved over time. In general, the level of bureaucracy in the Uzbek system cannot be underestimated, it took years of ZdravPlus and WB Health I working together with local partners to slowly address a host of operational issues such as operation of bank accounts and who was authorized to sign to release funds. This was one of the keys to the success of the rural PHC model finance reforms; continuous support to work through operational issues until procedures were changed and ownership of system operations increased.

At the same time that operational issues in the initial three pilot rayons were being resolved, ZdravPlus and WB Health I engaged in dialogue, over the course of about a year, on roll-out of the reforms. As health financing reforms are most effective when implemented at the oblast level, ZdravPlus wanted to design and approve plans for roll-out early in the process to help ensure that the reforms moved beyond the initial rayon level pilot phase. Prompted by the overall success of the pilots, the Government of Uzbekistan decided to accept the model and begin roll-out of the rural PHC financing reforms. Planning resulted in an approved legal basis to roll-out in phases to all rayons in the pilot oblasts of Ferghana, Navoiy, and Sirdaryo. The first phase of roll-out was to the three “control” rayons (established to evaluate the results of the pilot rayons) in Ferghana Oblast. Then the roll-out in phases continued from 2002-2004 until all thirty-seven rayons in Ferghana, Navoiy, and Sirdaryo were included and the health financing reforms were solidified at the oblast level. The phases of roll-out to rayons, number of SVPs, population coverage, capitated rate, percent of health budget allocated to PHC in each oblast, and summaries for many of the finance and management trainings provided by ZdravPlus are shown in the table below.

In addition to a roll-out to all the rayons in the initial pilot oblasts, in 2004, Uzbekistan took the step of rolling-out beyond the initial three pilot oblasts by implementing the rural PHC finance reforms in three rayons in KKP and Khorezm Oblast. This further extension of the roll-out was critical to dialogue with the Uzbekistan Government during the design of WB Health II where agreement was reached for national roll-out of the rural PHC model in phases over the next five years. ZdravPlus provided extensive technical assistance to the roll-out in Ferghana, Navoiy, Sirdaryo, and Khorezm Oblasts and KKP. Included in this was work with local partners to institutionalize the technical methodologies and operational processes. In 2003, an analysis was

done of the pilot rural PHC finance model to determine what adjustments or revisions were required before roll-out. The result of this analysis was minor revision to the finance elements of the model and more significant revision to the management elements of the model, especially regarding finance managers and the clinical information system. There was recognition that the finance elements need to be standardized nationally while the management aspects at the SVP level need to be adapted to local conditions. In the roll-out to KKP and Khorezm Oblast in 2004, ZdravPlus provided only limited technical assistance, Uzbekistan partners were able to implement the reforms, and the institutionalization process moved forward rapidly.

The overall Uzbekistan health reform strategy is piloting reforms in one part of the health system, then rolling them out geographically (horizontally), then moving to another level of the health system to pilot reforms (vertical movement). Consistent with this approach, over the last couple of years of the project, ZdravPlus began engaging in dialogue with partners in Uzbekistan about development of an urban PHC reform model. A JWG was established and began designing a pilot and the first site was selected (Marghilon City in Ferghana Oblast). To obtain experience and lessons learned from other countries as study tour was organized to Kyrgyzstan for the JWG. A basic model of mixed polyclinics with urban general or family group practices within the polyclinics, paid under a capitated rate payment system was agreed. However, much work remains on the conceptual model, technical elements, and implementation plan before the pilot urban PHC model can be implemented. This movement to the next level of reform of the health system through an urban PHC model is included in World Bank Health II.

In summary, pooling of rayon resources for PHC at the oblast level has enabled more equitable distribution of resources among the rayons. The capitation-based new provider payment system has provided incentives to the SVPs to focus on preventive care and to target resources to the most vulnerable populations. The finance and management reform aspects of the rural PHC model has helped the SVPs evolve as primary care facilities with more management and financial autonomy and capacity to use resources and savings to improve health service delivery and respond to community health needs. The overall results of the rural PHC reforms are documented in the table below.

Implementing and Rolling Out Rural PHC Reform in Uzbekistan

Indicators	1999	2000	2001	2002	2003	2004*
1) Number of rural PHC facilities (SVPs) brought under per capita financing and management reforms						
Ferghana Oblast	45	45	47	89	273	273
Sirdaryo Oblast	-	-	42	43	100	129
Navoiy Oblast	-	-	21	43	131	140
2) Number of pilot rayons						
Ferghana Oblast	3	3	3	6	17	17
Sirdaryo Oblast	-	-	3	3	9	11
Navoiy Oblast	-	-	3	3	9	9
3) Population enrolled with the reformed PHC facilities						
Ferghana Oblast	325,500	326,979	327,400	637,472	1,811,379	1,849,196
Sirdaryo Oblast	-	-	160,937	165,408	336,298	397,461
Navoiy Oblast	-	-	73,476	156,451	477,462	499,671
4) Total population of the oblast						
Ferghana Oblast	2,627,300	2,656,278	2,670,951	2,741,623	2,743,900	2,811,435
Sirdaryo Oblast	-	-	648,210	651,644	661,568	671,000
Navoiy Oblast	-	-	695,954	710,000	712,500	721,550
5) Per cent of population covered under the reforms with rural PHC per capita financing and management						
Ferghana Oblast	12.3	12.3	12.3	23.3	66.0	66.0
Sirdaryo Oblast	-	-	24.8	25.4	51.0	59.0
Navoiy Oblast	-	-	10.6	22.0	67.0	69.0
6) Capitation rate for the pilot PHC facilities (Uz Soum)**						
Ferghana Oblast	367	667	964	1,305	1,615	1,831
Sirdaryo Oblast	-	-	832	1,153	1,750	1,839
Navoiy Oblast	-	-	1,084	1,957	2,450	3,414
7) Total allocations made to the reformed rural PHC facilities (million Uz Soum)						
Ferghana Oblast	98.5	244.6	343.1	875.2	2,114.5	3337.4
Sirdaryo Oblast	-	-	156.6	260.4	665.0	986.8
Navoiy Oblast	-	-	79.9	219.2	1,231.1	1,572.4

8) Share of the allocations made to the reformed rural PHC facilities as percent of health budget of the pilot rayons						
Ferghana Oblast	16.3	18.6	19.5	19.8	21.3	21.4
Sirdaryo Oblast	-	-	15.6	16.8	24.0	24.0
Navoiy Oblast	-	-	21.8	22.0	27.2	28.7
9) Number of orientation seminars held in the pilot oblasts	1	5	1	3	**10**	**-**
10) Number of rayon/oblast managers who received orientation on health and financing reforms	30	143	40	137	**220**	**-**
11) Number of technical training programs conducted on per capita financing calculations* **	2	1	2	1	**2**	**2**
12) Number of PHC/oblast/rayon managers who received trainings in per capita financing calculations	45	24	74	28	**62**	**102**
13) Number of training programs on health management conducted for the PHC head doctors, finance managers and rayon coordinators**	10	3	23	31	**32**	**12**
14) Number of participants (PHC head doctors, financial managers and rayon coordinators) who received training in various health financing and management topics	316	61	565	600	728	454
15) Number of oblast and rayon health personnel trained in data collection for the population database, data processing and computer applications	300	350	480	480	**473**	**220**

** Oblast-wide roll-out of rural PHC F&M reforms were completed in Ferghana, Sirdaryo and Navoiy Oblasts. As part of the planned national replication, implementation of the rural F&M reform model was also extended to 2 additional regions in 2004: 48 SVPs in 3 rayons in Khorezm and 47 SVPS in 3 rayons in Karakalpakstan.*

*** Current capitation rates (in 2005) are 2176, 2529, 4087, 2000 and 2055 Uz Soum in Ferghana, Sirdaryo, Navoiy, Khorezm and Karakalpakstan, respectively.*

**** In addition, 4 introductory seminars (2 orientation and 2 on basics of per capita financing) attended by 172 health managers and 8 technical training programs for 182 PHC Head Doctors, Finance Manager and Rayon Finance Coordinators were conducted in Khorezm and Karakalpakstan during 2003-4.*

***** Also, 2 TOT programs on advanced health management – attended by 55 participants/teachers from the national medical and economic/business institutes – were conducted with a view to develop a cadre of local Master Trainers on health management, and thereby support institutionalization of health management training activities. To this end, ZdravPlus also published and disseminated a series of books in Uzbek/Russian on various health management topics, manuals on PHC management and per capita finance methodologies, and relevant specialized computer applications with user manuals.*

Health Information Systems

Health information system (HIS) activities in Uzbekistan supporting implementation of the rural PHC model included:

- Establishing Health Information Centers (HICs) at the OHD and Rayon Health Department (RHD) to collect and process data related to the financing and management reforms;
- Developing and supporting implementation of a population database used in the capitated rate payment system;
- Developing and supporting implementation of a financial information system used for the new capitated rate payment system and SVP management; and
- Developing and implementing a SVP clinical information system.

As computers were procured under World Bank Health I, ZdravPlus provided technical assistance, training, and operational support to the OHD and RHD HICs to install the computers, set up hardware and software systems, train operators in basic computer skills, and provide computer maintenance and trouble-shooting in the early stages of the reforms. A capitated rate provider payment system requires a population database to enroll the population and determine the number of people served by each SVP. ZdravPlus worked with Health I staff and local partners to adapt the population database from Kyrgyzstan, install it in the HICs, collect population data from the SVPs, enter the population data, quality check the data, and produce analyses. The initial work required to establish the population database is very time consuming and labor intensive, after the database is established a lower level of effort is required to maintain it and the database is now institutionalized in the OHD and RHD HICs. The population database remained in the rural PHC model after it was revised to be appropriate for national roll-out.

Following implementation of the capitated rate payment system, a financial information system was needed to allow the OHD to manage the payment system and the SVPs to improve their budgeting, allocation, and accounting. ZdravPlus worked with Health I staff and Uzbekistan partners to design a new financial information system, test it in pilot facilities, train staff, refine it, and then extend it to all OHDs and SVPs participating in rural PHC financing and management reforms. The financial information system has been broadly accepted by Uzbek government, finance, and health authorities and SVPs find that it enhances their ability to manage their resources. The financial information system remained in the rural PHC model after the model was revised to be appropriate for national roll-out.

ZdravPlus also worked with Health I staff and local partners to adapt the Kyrgyzstan PHC clinical information system and implement it in SVPs. The purpose of the clinical information system (CIS) is to collect and automate data enabling SVPs to manage and improve the provision of health services to their enrolled populations. The CIS was difficult to implement in Uzbekistan for a number of reasons:

- Electricity was often unavailable in rural areas;
- Each SVP did not have a computer, requiring that data be entered at the RHD HIC thus reducing ownership by SVPs;
- The magnitude of per visit clinical data and administrative costs were too high in PHC; and
- The Republican Information and Analytical Center (RIAC), the national institution responsible for health information, did not believe rural PHC was an appropriate place to initiate improvements in HIS, so it was hard to institutionalize.

Although it is planned that the CIS will be used in selected SVPs and introduced in urban PHC, it was decided not to include it in the rural PHC model revised for national roll-out as the level of effort required is too high and it could jeopardize the roll-out. Instead, ZdravPlus is working with all stakeholders to develop and implement a more aggregated automated CIS for SVPs that directly connects to monitoring indicators.

Finally, ZdravPlus also engaged in broader dialogue with RIAC about the development of a new national HIS and contributed a few other technical products. One technical product was the translation of the International Classification of Diseases 10th Version (ICD-10) into Uzbek and printing, distribution, and training to facilitate implementation of ICD-10 in Uzbekistan.

Health Management

In Uzbekistan, health management activities focused on enabling SVPs to improve facility management and adapt to the new financial management incentives in the capitated rate provider payment system. A new position of SVP finance manager was established. Health management activities supporting implementation of the rural PHC model included:

- Extensive training and support for SVP finance managers;
- Basic management training for SVP head doctors and rayon/oblast authorities/coordinators; and
- Institutionalization of finance manager training into educational institutes.

Early in the project, ZdravPlus trained all the finance managers for the pilot rayons. The training consisted of modules on organizational management, business planning, strategic planning, personnel management, inventory/asset management and financial management (budgeting, book-keeping and accounting, financial analyses). Following the training, ZdravPlus provided operational support as the finance managers began working for their SVPs. This support encompassed a number of activities, ranging from developing a finance manager manual including all relevant legal documents and financial procedures, to helping individual finance managers solve problems including receiving their capitated rate payment, how to develop a budget, accounting documentation, and a variety of other small but important tasks, such as processing of the monthly fund requirements, consolidation of the monthly expenditures, transfer of funds from the current account to the facility development (deposit) account, use of the deposit funds, etc.

Initially, establishing the finance manager functions and position was very difficult as decentralization of authority and increased autonomy were not common in Uzbekistan. Finance managers from rural areas did not have a lot of capacity before the training, and the pilots were forging a lot of new ground without established procedures. Gradually, the capacity of the finance managers increased; the SVPs and finance, and health authorities began to appreciate the importance of their role; and all stakeholders took greater ownership of the finance and management reforms. The finance managers faced, and worked to resolve, a number of problems. For example, although theoretically SVPs were supposed to have management autonomy to determine their own staffing schedules, in practice there were many constraints. Many issues such as how to address maternity leave have been addressed while others remain, including Central Rayon Hospitals (CRHs) allocating staff to SVPs without the SVP approval. As with all elements of the finance and management reforms, the operational problems are solved step-by-step as the reforms continue to mature.

ZdravPlus also worked with all stakeholders to support the development of creative incentives and programs to improve finance manager performance. For example, one of the main problems for the SVP finance managers was transportation as they needed to travel to the RHD HIC or visit

finance and health authorities. To address this, ZdravPlus provided bicycles to the finance managers. To enhance motivation of the managers in implementation of health reform issues, competence-based incentive programs were developed providing awards for contest winners, such as “Best Financial Manager,” “Best Financial Analysis,” and “Best Business Plan.” The winners of these contests were rewarded with a three-day special training on Financial Administration at the Tashkent International Medical Clinic. These programs succeeded in evoking a lot of enthusiasm among the managers.

It was recognized that SVP head doctors and health authorities also needed management training to build capacity to implement the finance and management reforms and understanding and respect for the role of the finance manager. Therefore, a three-day special training course was designed and implemented to impart basic health management training to the PHC head doctors/managers and rayon/oblast coordinators/managers. The training program consisted of modules on organizational management, business planning, strategic planning, personnel management, inventory/asset management, and basic financial management. This activity was quite successful in developing some health management skills among the PHC managers. Prompted by the usefulness of such training, this management training program was included into the 10-month GP training curriculum.

As the finance and management elements of the rural PHC model began to roll-out beyond the first pilot rayons, ZdravPlus recognized the need to institutionalize the finance manager training for long-term development and sustainability. A series of discussion with the MOH and the national medical institutes took place and in August 2003, the MOH issued order #384 initiating institutionalization of the health management and finance trainings within the national medical institutes and the GP training centers. To support this initiative, ZdravPlus conducted two TOT courses to develop local trainers who could conduct the management and finance training courses for the planned national roll-out. To support this effort ZdravPlus printed a series of training and reference materials on health management and financing in Uzbek and Russian languages. ZdravPlus publications included the following: Accounting for Budgetary Organizations, Introductory Management for Financial Managers, Practical Manual for PHC Managers, Financial and Management Reforms in the Health Sector, Strategic and Business Planning and Financial Analysis for PHC Facilities, and Administration and Personnel Management in PHC Facilities. With very limited technical assistance from ZdravPlus, all management and finance training programs within the national roll-out will be handled by the national medical institutes and their affiliate GP training centers in the regions.

Before the rural PHC finance and management reforms were rolled-out to all of Ferghana, Navoiy, and Sirdaryo Oblasts and then later KKP and Khorezm Oblasts, the pilot experience was assessed and analyzed and the model adjusted to incorporate revisions and improvements. The role of the finance manager in the rural PHC model is definitely one element that has seen a lot of evolution and adjustment. This is appropriate as it is important for the finance manager position and management in general to adapt to local conditions. Initially, each SVP had a finance manager. Then it became clear that this would be hard to sustain in national roll-out so some SVPs shared finance managers. As the roll-out continues, each new area is proposing how the SVP finance manager position will be best established and developed in their local environment. A number of options will be considered in national roll-out and the relationships between CRH management and SVP management will be addressed. In general this process of adaptation and local flexibility should strengthen both implementation and ownership of the rural PHC finance and management reforms.

Resource Use Results

Significant results were achieved towards USAID Performance Monitoring Plan results under the Resource Use component, especially in terms of the percentage of total health expenditures in

pilot oblasts spent on PHC and the number of facilities included in new provider payment systems. PHC funding as a percentage of total health expenditures more than doubled, increasing from 12 percent in 2000 to 29 percent in 2004. This increase represents an increased commitment by the Uzbek government to PHC, especially in rural areas. The percentage of total health facilities paid by new provider payment systems in ZdravPlus pilot oblasts has nearly tripled from 13 percent in 2001 to 35 percent in 2004. In real terms this means that by 2004, 635 SVPs were financed by new per capita payment systems, demonstrating the continued success and roll-out of system reforms. Other process indicators also show progress including the number of PHCPs formed, increasing from 98 in 2000 to 635 in 2004. Over the five years of the project, 33 health financing or funds flow products were developed in close collaboration with policymakers. As of 2003, ZdravPlus had provided or supported over 12,500 person-days in management training. No rationalization plans were developed in Uzbekistan.

SERVICE DELIVERY

Improving the quality of care in a post-Soviet environment presents formidable challenges. Initial post-Soviet health systems are dominated by large numbers of hospitals and by specialists based in urban polyclinics that provide care for many simple conditions that could be managed on an outpatient basis or at home. Primary health care (PHC), by contrast, is weak and under-funded, serving largely as a referral point, to send people to the appropriate specialist or hospital. This top-heavy system is also very fragmented, with separate systems—each with its own clinics and hospitals—serving different population groups and handling different diseases. Thus, women generally go to women's consultations and maternity hospitals; but they must take their children to children's polyclinics and children's hospitals; if they want a Pap smear, they need to go to the oncology system; and if their child has diarrhea, they need to go to an infectious diseases hospital.

In this fragmented system, there are too many doctors and specialists are the norm. Doctors are trained to care either for adults or for children—but not both—and almost all of them become "narrow specialists." Their training is highly theoretical, providing little opportunity to learn clinical skills through case studies and practice with patients under the supervision of faculty. Clinical practices and drug prescription practices are not based on evidence and are not in line with international approaches. There is also an abundance of nurses, midwives and other "midlevel staff" who have very low status in the system, spending most of their time on paperwork, helping doctors with menial tasks, cleaning the facility and making home visits to patients to encourage them to visit the health facility.

The whole system is based on large numbers of (sometimes contradictory) rules and regulations that allow doctors little room for clinical judgment. Providers are inspected by various agencies several times a week, usually with a view to identifying and punishing violations of rules and regulations, rather than rewarding good performance or local initiative. With government-set targets and quotas to be met—and fines and punishments meted out if they are not met—it is not surprising that doctors tend to view the government rather than the population as their client. This is also reflected in unreliable data submitted by health facilities to show compliance with requirements, rather than indicating the real health status of the population or actual services provided.

Situation at the Start of ZdravPlus

Under ZdravPlus' predecessor project, ZdravReform (1994-2000), the new discipline of family medicine (FM) was introduced as the foundation for a strengthened PHC system that would provide better-integrated care to the population and, over the long term, reduce the need for large numbers of specialists and the costs associated with a large infrastructure. Short training courses, usually based on WHO modules such as those on the treatment of childhood acute respiratory infections (ARI) and childhood diarrheal diseases (CDD) and the importance of breastfeeding, were provided for specialist physicians and nurses working at the PHC level. A FM training of trainers (TOT) program was initiated in Kyrgyzstan as the first step toward retraining doctors for a broader scope of service and new independent family group practices (FGPs) were staffed by retrained PHC physicians. ZdravReform collaborated with the World Bank to provide these facilities with basic equipment. The highly centralized and outdated pharmaceutical sector was restructured by privatizing retail pharmacies, and national Essential Drug Lists were adopted.

By the end of ZdravReform, this new PHC-centered model had taken root in pilot sites throughout Central Asia, but much work remained to be done to update the content of clinical practice and the quality of care. The outdated nature of clinical practice was so ingrained that the new short FM retraining courses were not enough to bring about substantial or systemic improvements in quality of care. Evidence Based Medicine (EBM) was still a long way from being incorporated into

clinical norms and policy. Although several WHO-endorsed clinical guidelines had been introduced, the vast majority of clinical practice remained controlled by outdated decrees. Vertical programs for sexually transmitted infections (STIs), tuberculosis (TB), oncology and other conditions continued to exist in parallel to the new PHC sector, and problems with access to prescription drugs were recognized as a key barrier to increasing PHC utilization and shifting services from hospitals to the PHC setting.

This section of the report outlines the growth of FM over the life of ZdravPlus, lessons learned as the project evolved, and the evolution of new strategies to reform clinical care through the promotion of EBM, the introduction of quality improvement methodologies and the integration of infectious disease services into PHC. This component section is organized by strategy, with examples of country-level activities and accomplishments described within each strategy section as appropriate:

- Strategy 1: Develop family medicine to improve provider performance and expand the scope of services
- Strategy 2: Integrate infectious disease services into PHC
- Strategy 3: Strengthen support systems for improved quality of care
- Strategy 4: Introduce evidence-based medicine (EBM) to modernize clinical practice in a sustainable way
- Strategy 5: Use quality improvement methods to support compliance with evidence-based practices
- Strategy 6: Link PHC and hospitals to build a more rational system of care

Summary Service Delivery Strategy 1: Develop Family Medicine to Improve Provider Performance and Expand the Scope of Services

A physician who practices family medicine (FM) is a multi-tasker by definition. He takes care of the entire family's basic medical needs; colds, coughs, minor injuries, prenatal care for pregnant women, immunizations for children, maintenance of hypertension, etc., counsels them on how to stay healthy, and knows when to send more serious cases to the proper specialist, but also keeps track of his patient's condition and treatment. It's convenient for patients as they save time and energy by taking the whole family to one facility, and their doctor knows them and their history, ensuring continuity of care.

The opposite of this is a system based largely around curative care, in which each member of the family has a different primary doctor based on their sex and age – pediatrician, ob/gyn, internist – often times located in a different facility. This doctor serves mostly as a referral point since he can legally, and based on his training, handle only the most minor of cases. Families waste time, energy and money, going from one doctor to the next where they receive highly specialized care, which is not always warranted, from doctors who don't really know them or their history.

The ZdravPlus Project has been working on replacing the second, Soviet-style, system, which is the norm in Central Asia, with the first by improving the quality of care available to the population, through increasing the skill level and scope of services offered by primary health care (PHC) physicians, thus resulting in better overall health outcomes and cost savings for the health system.

Introducing an entirely new specialty in to a healthy care system is no small task and is especially difficult in the highly bureaucratic Central Asian environment, where every aspect of medical care is regulated. ZdravPlus encouraged the acceptance, introduction and establishment of family medicine through a multi-pronged strategy designed to address issues at as many levels as possible:

1. Work is begun at the national level to reach agreements on the introduction of FM, remove barriers to it's practice and create incentives among the population to visit their family physicians instead of going straight to the hospital;
2. A cadre of physicians are then trained to act as FM trainers;
3. These trainers re-train ob/gyns, internists and pediatricians to be family doctors; and
4. With an eye towards future sustainability – a residency program for recent medical school graduates is developed along with a system for Continuing Medical Education.

This strategy has seen remarkable success in Kyrgyzstan, where PHC level care was restructured to create family group practices (FGPs) throughout the country, nearly all of them now staffed by physicians who have completed, or are soon to complete, re-training as family physicians. This re-training takes place at one of the seven Family Medicine Training Centers (FMTCs) located through-out the country, which also serve as centers for continuing education. Various professional groups have been established to promote family medicine and support the new family physicians and the Kyrgyz State Medical Academy (KSMA) and Kyrgyz State Medical Institute for Retraining and Continuous Education (KSMIRCE) teamed up to start a Family Medicine Residency Program for recent medical school graduates. The population has access to higher quality health care and they save time and money by not having to take their families to multiple different facilities.

This strategy has also been undertaken in Uzbekistan, where rural PHC reforms are now being rolled-out nationwide, and Tajikistan where the government has made a strong commitment to the introduction of family medicine and is now in the TOT phase. In Kazakhstan, the richest of the five Central Asian countries in which ZdravPlus works, family medicine has been in the pilot phase for quite some time, but advocacy by ZdravPlus and the Kazakhstan Association of Family Physicians (KAFP) has moved the government towards national-level acceptance of the family medicine concept. In Turkmenistan, the restrictive nature of the government is such that introducing large scale reform was not possible over the life of ZdravPlus, however, groundwork for family medicine has been laid with the introduction of the WHO's Integrated Management of Childhood Illnesses strategy for physicians, nurses and medical students and trainings for physicians on healthy lifestyles which promotes preventive care, a key aspect of family medicine.

SERVICE DELIVERY STRATEGY 1: DEVELOP FAMILY MEDICINE TO IMPROVE PROVIDER PERFORMANCE AND EXPAND THE SCOPE OF PHC SERVICES

Family Medicine Training

Several of the governments in the region have opted to introduce family medicine (FM) as a means to provide better-integrated care to their populations, to strengthen primary health care and also as an efficiency measure to reduce the number of doctors over time and rationalize the PHC system. Developing FM is, of course, a mammoth task and there are several strategies available to a country, each with its own advantages and disadvantages. ZdravReform and ZdravPlus helped the Central Asian governments consider these options and decide on a strategy:

- Option 1: Introduce family medicine through undergraduate medical education and residency programs; an excellent long-term approach but one that does not produce rapid results.
- Option 2: Retrain doctors who are already practicing in the field; this produces rapid results but involves a number of trade-offs. It is a temporary strategy which does not prepare a new generation of young people to graduate as family doctors and retrained doctors who have practiced their specialty for many years may not feel comfortable treating patient groups outside of their former specialty.

Declining health budgets in the region meant that Option 1 would simply take too long to have the kind of quick impact that was needed. The ZdravPlus strategy was to advocate for and provide intensive retraining programs for practicing physicians and then to send the retrained doctors back to a restructured PHC system where they are clustered into Family Group Practices (FGPs), comprised of a pediatrician, an ob/gyn and an internist, who between them can provide basic PHC services to the whole family and can continue to cross-train each other. After eight years, this retraining process in nearing completion in Kyrgyzstan and a new phase is just starting to continue updating and expanding the retrained doctors' skills through Continuing Medical Education (CME).

It would not be possible to effectively introduce FM without also reforming the system in which it functions, and a broad health systems reform project like ZdravPlus was perfectly positioned to support this change. The whole health system needed to be restructured and incentives inherent in old payment systems reversed in order to strengthen PHC and allow FGP doctors to provide a broader scope of service, while shrinking the hospital sector and specialty care. Conversely, FM supports other systems reforms by providing high quality care at lower cost and making health services more client- and community-oriented, thus changing the nature of the relationship between the health system and the population.

Family medicine retraining is in various stages of implementation throughout Central Asia, however, it has become the most accepted and widely implemented in Kyrgyzstan

Family Medicine in Kyrgyzstan

Faced with a health care crisis after the collapse of the Soviet Union, due to lack of resources, the Kyrgyz MOH decided to embark on retraining primary care pediatricians, ob/gyns and internists in order to increase the quality of care available and at the same time, reduce costs. In addition, long-term family medicine training programs for young doctors embarking on their careers were established. Shortly after starting the retraining for doctors ZdravPlus recognized that in order to truly reform primary care, nurses would also need to be retrained. Within a year, a retraining program for family medicine nursing was developed, mirroring the doctors' programs.

Excellent donor coordination by the Kyrgyz MOH and a strong spirit of collaboration between donors helped lay the foundation for the successful first phase of FM development in Kyrgyzstan. In general, USAID-funded expenses to prepare and sustain local FM teachers, including much of the cost of establishing, equipping and operating a network of seven oblast-level FM training centers (FMTCs) and four other clinical training bases in Bishkek associated with the FM residency program. World Bank funds supported most of the expenses for PHC doctors and nurses who participated in training courses, and also helped provide furniture and equipment for the FMTCs and all of the FGPs. The MOH provided the facilities for the FMTC, on a rent-free, utility-free basis. ZdravPlus' implementing partner, the Scientific and Technical Language Institute (STLI), a US-based humanitarian NGO, provided a team of five volunteer American doctors and two American nurses who went on to spend most of the past nine years based in Kyrgyzstan, as well as many short-term physicians and nurses who provided specific expertise. Numerous other donors, projects and NGOs contributed to the effort at various times throughout the project.

Training of Trainers and Establishing Clinical Bases

The first step in setting up the retraining program was to develop a cadre of trainers and, between 1997 and 2004, 63 doctor trainers and 64 nurse trainers completed a one-year family medicine training of trainers (TOT).

The first year-long TOT took place in 1996 in Issyk-Kul Oblast at a newly established FMTC. In March of 1997, the national and regional hub for ongoing TOT courses moved to Bishkek and by 2002, all seven oblasts had a FMTC staffed by graduates of the doctors' and nurses' TOT programs. The FMTCs were set up at existing polyclinics, to give the trainers and their trainees regular access to patients for the clinical aspect of their training. Thus far it has not been possible to formalize the linkage between academic training and clinical practice by allowing FMTC trainers to have their own patient population. So the interim solution has been to incorporate FGP doctors and their patients into the FMTCs, then to "borrow" the FGP doctors' patients for teaching purposes.

It was clear early on that the clinical portions of the TOT courses would be most important. Regardless of their background, all the TOT course participants lacked training and experience in many of the basic clinical skills that family doctors and nurses use regularly. For instance, before the TOT course, none of the trainees were able to perform otoscopy, ophthalmoscopy, suturing, or a screening neurological exam. In the Soviet system, clinical skills such as these were reserved for sub-specialists. Therefore, the TOT curriculum for doctors included a half-day of direct patient care every day in addition to lectures. The STLI consultants mentored the trainees as they cared for a broad spectrum of patients, including both sexes and all ages. This one-on-one practical teaching was essential in order to transform the trainees' approach to clinical reasoning and to convince them that it really is possible for family physicians to care for more than 80 percent of the health care needs of entire families.

In the curriculum, topics were organized syndromically, into 37 different clinically relevant modules such as back pain, chest pain, headache, cough, depression, family planning, and healthy lifestyles, reinforcing a more holistic approach for trainees who had been trained either in adult medicine or pediatric medicine—but not both. The doctors also had to be introduced to modern evidence-based practices, since they relied mostly on old non-evidence-based approaches.

As the number of FM trainers was approaching the number needed for Kyrgyzstan, the TOT program began to turn its attention to preparing FM trainers from other countries in the region. From 2001-2004, additional FM trainers from Tajikistan and Kazakhstan completed the 11-month doctors' TOT course in Bishkek. A briefer one-month clinical clerkship program was also created to provide supplementary clinical training to FM doctor trainers from Uzbekistan and Kazakhstan

who had already completed FM training programs sponsored by DFID, but needed to strengthen their clinical skills. Over 30 physicians have participated in these short clerkships.

Retraining PHC Doctors and Nurses

Once the first class of trainers had graduated, in 1998, they began rolling out training for practicing PHC doctors. The retraining involves four months of training modules, completed over a one to two-year period. In the case of the nurses, the program takes just two months. The doctors' curriculum is divided into two phases. The first three months (phase I) is organized by specialty and organ system and primarily involves lectures, workshops, and visits to hospitals and clinics. Phase I is typically divided into either three or six-week blocks, so that the physicians are never away from their practice for too long. Phase II, a one month block, takes a more interactive integrated approach and mostly covers various WHO modules.

Between 1997 and the end of 2005, nearly all of Kyrgyzstan's FGP doctors and 85 percent of its nurses have completed retraining at the FMTCs. As ZdravPlus came to an end, this retraining effort was drawing to a close and attention turning towards ongoing medical education and training.

However, retraining existing doctors through these several-month courses is not enough to change years of practice patterns and to introduce an entirely new specialty. Thus, there was also a need for ongoing sustainable FM training programs. Beginning in 2001, ZdravPlus began to focus on the FM Residency Program (FMRP) and Continuous Medical Education (CME).

FM Residency Program (FMRP)

As early as 1998, both the Kyrgyzstan State Medical Academy and KSMIRCE started separate FM residency programs to provide an ongoing supply of family physicians trained by graduates of the TOT program.

These individual programs met with varying success and in 2001, the KSMA and KSMIRCE decided to create a new joint National FM Residency Program with the help of ZdravPlus and the American International Health Alliance (AIHA). For the first year and a half of the joint program, residents spent two half-days per week seeing patients in one of five family medicine teaching clinics in Bishkek, where they were observed by graduates from the FM TOT. During their last six months, the residents spent most of their time at these clinical sites, and also spent two weeks working in a rural FGP. Throughout their residency, the trainees also attended a weekly lecture series. These longitudinal clinical and didactic aspects of the curriculum were supplemented by a variety of block rotations to various other clinics and hospitals, where the residents were exposed to all the basic specialties.

For the first two years, the program was met with enthusiasm by recent medical school graduates and residents were selected competitively from a relatively large pool of applicants. But since then, the number of applicants has gone down. Encouragingly, a survey of the first class of graduates showed that they were substantially more likely to be employed than other recent medical school graduates. Numbers of applicants to the program have increased, helped by the opening of a southern branch of the residency program in Osh in 2004. Since its inception, the joint FM Residency program has graduated 84 family doctors. However, a World Bank consultant has estimated that Kyrgyzstan needs 100-125 new family doctors annually to maintain adequate staffing for FGPs. While the number of graduates needs to increase, care must be taken to avoid compromising the quality of the training by expanding the number of trainees too rapidly. And for now, the larger problem is developing interest among young people in choosing FM as a specialty.

Continuous Medical Education (CME)

The Soviet Union had a well-established CME system, but after the collapse, most doctors and nurses could no longer afford to travel to the two cities in Kyrgyzstan where CME was provided,

so many had not had any training for 10-15 years or longer. To address this problem, the KSMIRCE and the Kyrgyzstan Family Group Practice Association (FGPA) launched a new CME program for FGP physicians in Issyk-Kul Oblast in March 2001.

The new system provides more frequent and pertinent medical updates through regional seminars in the oblasts, on-site clinical workshops at FGPs, and individual study modules. The program is designed to be modular, flexible, and tailored to meet the needs of FGP doctors and nurses.

The redesigned system proved to be successful and was quickly extended to include FGP nurses. Then, in 2004, with the help of ZdravPlus and the World Bank, it was expanded to all oblasts, involving about one-third of the country's FGP doctors and nurses. Further expansion is planned for 2005-6 so that about two-thirds of the FGP doctors and nurses will be involved.

In Issyk-Kul Oblast, over 95 percent of FGP doctors have participated in the CME courses annually for the past three years. The system is based on cycles, which currently are one-year-long for doctors and 1.5-years-long for nurses. During each CME cycle, every FGP doctor and nurse attends a five-day regional seminar in their oblast, and they also benefit from a two-day site visit to their FGP or a neighboring FGP by oblast-level FM trainers. The topics for these seminars and site-visits are repeated during the entire CME cycle, so that all the doctors and nurses in that oblast study the same topics for that cycle. Individual study topics are more flexible.

It is anticipated that a credit-hour system will eventually be used to track the amount of CME accomplished by every FGP doctor. This will help motivate physicians to participate in the CME system, since their salaries are influenced by their professional category.

Continuing Medical Education has also been linked to the Quality Improvement System (QIS) (see Strategy 5) that provides an ongoing mechanism for FGPs to internally identify needed improvements in the quality of care and address them themselves, without waiting for intervention from higher levels of the system. Needs for additional training identified by the QIS can be addressed during CME site visits and by topics for the individual study part of CME.

Impact of FM Training

While tremendous progress has been made in introducing FM in Kyrgyzstan, the question arises as to the impact of this enormous effort in terms of the scope of services provided by the retrained FGP staff, the quality of care and clients' attitudes toward the new services. The major sources of data on this subject are a 2003 study undertaken for the World Bank by Imperial College in London, and from an assessment by the MOH and the KSMIRCE on the quality of services provided by FGPs. Overall, the data show that FGP doctors in Issyk-Kul Oblast, where health reforms have been in place longest, are significantly more likely to serve as the point of first contact for patients with a very wide variety of conditions, when compared to FGP doctors in Bishkek City and Osh Oblast, where the reforms were not nearly as well established.

1) Improved Access to a Broader Range of Services

The Imperial College study shows that in Issyk-Kul, for example, all mothers surveyed said they would take their child with minor ailments such as a rash or severe cough to their FGP doctor first, whereas only 56-64 percent of the mothers in Bishkek would do so. Similarly, in Issyk-Kul more than 95 percent of women needing oral contraception or a confirmation of pregnancy and 95 percent of men with abdominal or chest pain would seek help first from their FGP doctor. In contrast, less than 45 percent of Bishkek patients with these complaints would visit their FGP doctor first.

The declining number of hospital referrals made by FGP doctors in Issyk-Kul Oblast also speaks to the growing capacity of these doctors to provide services in their communities. There was a 13 percent decrease in hospital referrals per person on their patient list between 2001 and 2002 and a

56 percent decrease the following year. Very similar declines in hospital referral rates were documented for acute ear nose and throat problems, lower respiratory tract infections in children under five years old, hypertension, type II diabetes mellitus, angina and asthma. These findings are supported by MOH statistics for the entire republic, which show declining hospitalization rates.

The Imperial College study also showed that doctors in Issyk-Kul Oblast were more likely to be involved in health promotion and disease prevention activities, compared with those from Bishkek and Osh. For example:

- 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; and
- A large majority of doctors interviewed were routinely provided health education during routine consultations relating to smoking, drinking alcohol and healthy diet. Family physicians from Issyk Kul and Bishkek (80-85 percent) were more likely to be involved in opportunistic health promotion activities as compared with PHC doctors from Osh (50-55 percent).

2) Quality of Care

The Kyrgyz MOH has been updating its medical protocols for a variety of conditions in recent years and the Ministry, ZdravPlus, WHO and the World Bank collaborated on audits of FGP medical records to determine if FGPs increased their compliance with these protocols between 2002 and 2003. The study showed, on average, a two-fold improvement in FGP doctors' compliance with the new MOH clinical protocols for asthma, hypertension, peptic ulcer disease, acute respiratory illness in children under five, pneumonia in adults, diarrhea and iron deficiency anemia, with Issyk-Kul Oblast outperforming the nation on many of these indicators. For example:

- Hypertension: compliance increased from 49 percent to 77 percent nationally, and from 51 percent to 86 percent in Issyk-Kul Oblast, where FGP development has been underway the longest;
- Bronchial asthma: national compliance increased from 27 percent to 60 percent and Issyk-Kul Oblast compliance increased from 22 to 77 percent;
- Stomach and duodenum ulcer: national compliance increased from 28 percent to 65 percent and Issyk-Kul Oblast compliance from 44 to 71 percent. During this same time period, one-third fewer ulcer patients were referred to the hospital.

The study also showed improvement in prescribing patterns, treatment costs and referral rates for emergencies. The average percentage of medications prescribed that are included in the essential drug list increased from 45 to 79 percent. Also, the average number of drugs prescribed for each visit dropped from four to two. The average percentage of prescriptions given as injections was also cut in half between 2001 and 2003, dropping from 34 to 17 percent. Similarly, the average percentage of patients with upper respiratory infections who were prescribed antibiotics fell from 34 percent in 2002 to 13 percent in 2003.

3) Patient Satisfaction

The MOH study also included some information about patients' attitudes. In 2003, 84 percent of patients had faith in their family doctor and 85 percent ranked the attitude of their family doctor and nurses as good.

In addition, ZdravPlus conducted four Knowledge, Attitude and Practices (KAP) surveys between 2001 and 2004 to examine public attitudes on a range of health topics. These surveys included a

sample of 300 people over the age of 15, half from urban areas and half from rural areas, in three oblasts (Issyk-Kul, Jalal-Abad and Talas).

The surveys indicate that public perceptions of FGPs have become more positive over time and by 2004 respondents reported that they were more likely to visit their family doctor for routine care than a narrow specialist. While only 25 percent of respondents in 2001 stated that they thought services in FGPs were better than a couple of years ago, by 2004, 36 percent of respondents thought them better. In 2001, 40 percent preferred a family doctor, while 38 percent preferred a specialist. By 2004, though, this had shifted substantially in favor of family doctors with 57 percent preferring them, compared with 25 percent preferring a specialist. (Others in the survey saw no difference or had no preference.)

These changes in attitude appear to be backed up by action on the part of the respondents as just 25 percent of those interviewed in the 2001 KAP survey saying they had visited a family doctor, as compared with 61 percent in 2004. Increasing proportions of respondents also stated that they would go to FGPs, for varied types of care: a child with diarrhea, childhood immunization, a child with a cough or cold, prenatal care, family planning, and hypertension.

Family Medicine in Kazakhstan

In the relatively affluent environment of Kazakhstan, family medicine faces substantial opposition from specialists and politicians who consider it appropriate for poor rural areas, but not for the country as a whole. Nevertheless, progress was made over the life of ZdravPlus.

In the early years of the project, as was the case in Kyrgyzstan, the emphasis was largely on building a cadre of FM trainers. In collaboration with a World Bank/DFID project in Kazakhstan and the FM training program in Bishkek, ZdravPlus supported the participation of 12 doctors and six nurses in year-long courses preparing them to teach FM. All of the doctors went on to become FM trainers and are continuing to teach FM at undergraduate and postgraduate levels, while the nurses have gone on to integrate FM principles and modern teaching techniques into nursing schools. The project has also supported two-year residencies in FM for a dozen young doctors. ZdravPlus provided technical support for all these training programs by teaching courses on various topics, particularly Evidence-based Medicine (EBM) and rational pharmaceutical use, and bringing a volunteer American family doctor to Kazakhstan to mentor the residents and ensure that they receive adequate clinical training. FGPs were established in various parts of the country, including the ZdravPlus pilot sites of Zhezkazgan/ Satpaev, Ust-Kamenogorsk, and Karaganda.

Recognizing the importance of advocacy for FM, a strategy was adopted in 2003, to invest in the development of the Kazakhstan Association of Family Physicians (KAFP) and its branches. KAFP received a grant from ZdravPlus enabling it to expand from 6 to 12 offices around the country and significantly deepen and expand the scope of its activities. Thanks to the work of KAFP and its members, particularly in introducing EBM and rational pharmaceutical use and modernizing academic teaching techniques, the credibility of FM in Kazakhstan has gained significant ground. Although the specialty still has political opposition, it is now firmly recognized and respected in academic circles. KAFP also flexed its political muscles, working to protect FM faculties when they were slated to be closed, fending off the merger of FGPs with polyclinics in Kokshetau, North Kazakhstan Oblast, for two years—although that battle was ultimately lost—and working with DFID to restore government funding for FM residencies. The association also provides benefits to its members through continuing education opportunities, an information bulletin that is linked to continuing education, health education materials and other support.

KAFP and its branches have gained recognition as capable, well-managed entities, attracting a grant from ExxonMobil for a high-profile child health project in the nation's capital of Astana and receiving small grants from the USAID-funded Healthy Communities Grants Program to expand

its work. The Association also became a member of the World Organization of Family Doctors (WONCA) in 2003 and provides the means for some of its members to attend WONCA meetings, sharing the experience of FM in Kazakhstan and gaining exposure to FM in other parts of the world where it is more developed.

To assess changes in the quality of care provided by FGP doctors in Zhezkazgan and Satpaev, Karaganda Oblast, medical audits/chart reviews were conducted in 2001 and again in 2003. Among the major findings were improvements in women's health services. Management of anemia in women of reproductive age, for example, improved, with increases in prescription of iron and use of oral medications, rather than injections. Moreover, cheap iron sulfate was prescribed more frequently. But the duration of iron treatment remained short. In terms of care for pregnant women, hospitalization rates decreased and there were improvements in record keeping for pregnant women. Blood pressure readings were found in 63 percent of pregnant women's charts in Zhezkazgan and in 91 percent of charts in Satpaev. However, doctors in women's consultations recorded blood pressure more frequently than those in FGPs. Hemoglobin levels were measured for all pregnant women in Satpaev and 96 percent in Zhezkazgan—more often than in women's consultations. Prescription of iron improved significantly, particularly in Zhezkazgan. And, while in 2001 doctors didn't keep records about breast feeding counseling, such records were kept in 2003.

There were also some improvements in ARI diagnosis, care and treatment. The breathing rate was calculated and recorded more often in 2003 than in 2001, but measurement and recording of temperature were about the same both years. In addition, physicians prescribed fewer antibiotics and there was a decrease in prescription of antibiotic injections.

Treatment of hypertension improved, with FGP doctors prescribing first line drugs more often than in 2001. Prescription of diuretics increased from 30 to 59 percent, and of beta-blockers from five to 30 percent. There was also less frequent use of old, non-effective medications. On the other hand, there was no evidence of changes in the doctors' diagnostic skills or in the quality of record keeping.

Family Medicine in Tajikistan

Soon after independence in the early 1990s, Tajikistan adopted a policy of gradual transition to primary health care according to the principle of family medicine and started the process by establishing a chair of FM in the Tajik Institute of Postgraduate Training of Medical Personnel. However, the civil war that gripped the country for much of the 1990s put a hold on the reform process and establishment of the FM chair did not actually take place until 1998. Little donor investment took place until after 2000 and ZdravPlus first began working with the Tajikistan MOH in 2002. The first step in developing a coherent FM program was the establishment of a sound training program for FM trainers.

Predictably, for the early days of a FM, there have been a host of challenges, ranging from the unification of diverse training programs, agreement on curricula for FM trainers and trainees, the establishment of clinical bases for training, laying the legal and policy foundations for the specialty—and so forth. There have also been frequent changes in roles and relationships, including leadership positions, in the key FM training and policy-making institutions, hampering rapid and coherent development of FM training programs.

Despite these difficulties, the training program for FM trainers has done well. The World Bank supported renovation of the Family Medicine Clinical Training Center (FMCTC) in Dushanbe as a clinical base for the postgraduate institute and ZdravPlus funded additional renovations and equipment to make the facility operational. By the end of 2003, training of FM trainers at this facility started with four international doctors provided by ZdravPlus to teach and mentor trainees. The program lasts 11 months and two cohorts of FM trainers have now been trained, preparing a

total of 28 FM trainers for the FMCTC and for undergraduate FM training programs. An additional 12 trainers were trained in Bishkek, Kyrgyzstan. A great strength of the FMCTC program is that the trainers and the TOT trainees have legal responsibility for their own patient populations, so that each trainee typically sees 3-5 patients per day and also does home visits, giving them constant opportunities to practice their newly acquired skills.

ZdravPlus has also supported FM curriculum revisions, promoted merit-based selection of trainers and trainees and competency-based graduation criteria, theoretical and practical teaching, support for oblast FM training centers, efforts to build a unified FM training program for the country and to support policy dialogue to establish FM as a recognized specialty.

By mid 2005, approximately 400 doctors (10 percent of the target) and nearly 400 nurses (five percent of the target) have been retrained as family medicine specialists under various programs funded by MOH, WHO, WB and AKF, the length of which varied from two to six-month courses. Much of this training was undertaken by trainers who had very little actually family medicine experience. The ZP TOT program has now ensured that qualified and experienced FM trainers at FM Clinical Training Centers undertake the lead in the retraining process.

Major strategies for the future include faculty support for oblast FMTCs to assist World Bank and Asian Development Bank FM training programs; piloting short FM training modules for doctors in rural areas; and establishing a CME program with modules on general FM skills, priority programs such as MCH, STIs and TB, dissemination of new CPGs and health promotion.

General Practice in Uzbekistan

Uzbekistan similarly opted for a retraining program for rural primary health care doctors and ZdravPlus has played a critical role in supporting the program. General practitioner (GP) training in Uzbekistan sought to follow the British model and the Department of International Development (DFID) provided technical assistance and trained the trainers. The actual training of trainers and trainees was financed through a World Bank loan for rural primary health care reform in three pilot oblasts. Through these efforts 105 GP trainers have been trained since 1998 and they have gone on to train 960 GPs.

ZdravPlus has made several important contributions to this effort. The first has been to provide opportunities for the GP trainers and some of the retrained doctors to upgrade their clinical skills. “Mini Residencies” were organized at the Tashkent International Medical Clinic where the doctors could see an American family doctor caring for a mixed patient population, observe how a family practice operates, and practice some simple clinical skills. There were also month-long “clinical clerkships” for GP trainers and some GP trainees at the FMTC in Bishkek. In response to requests from SVP (village medical point) doctors, ZdravPlus also conducted training courses on how to use the medical equipment that had been purchased for them with World Bank funds.

ZdravPlus’ second major contribution has been to work with a group of GP trainers to pull together a variety of lectures, slides and materials used by different visiting lecturers from the UK into a standardized curriculum with clear learning objectives and standardized testing. The revised curriculum also integrates short courses on priority health topics—generally standard WHO modules. ZdravPlus then trained the GP trainers to teach these courses.

A survey undertaken by an independent consultant for the World Bank in 2003 of 120 PHC facilities in the pilot oblasts (Ferghana, Navoiy, Sirdaryo), with Tashkent Oblast as a control site, involved 667 patients and included an evaluation of the GP training. Observation of doctors performing sets of tasks and providing services to different population groups showed noteworthy improvements among doctors who had received GP training, as compared to those who had not (see table below). The difference between the GP-trained doctors and others was most marked with respect to care for children up to age five. This is probably a reflection of training in the

WHO's Integrated Management of Childhood Illnesses which the doctors received since the assessment tasks for children were based on IMCI.

General Practitioner Assessment

	Index of Assessment Tasks		60 percent Level of Assessment	
	GP-trained	Not trained	GP-trained	Not trained
All patients	60 percent	54 percent	45 percent	34 percent
Up to age 5	59	46	38	11
Age 6-18	65	58	66	60
Adults	54	50	32	23
Pregnant women	74	66	83	66

Source: Health Facility Survey in Uzbekistan, August 2003-January 2004, Final Report, Norbert Rehlis et al, MOH/CPIB "Health"

The survey also included exit interviews with patients and these indicated that patients were generally pleased with the services offered in SVPs in all oblasts, although about 36 percent of patients expressed the need to improve the quality of care.

Non-Governmental Organizations

Family medicine NGOs have played a critical role in supporting the development of FM, advocating for the needs of PHC facilities and family doctors at all levels of the health system and contributing to the continuing education of FM doctors. In Kyrgyzstan, the FGPA worked with humanitarian organizations in identifying FGPs' needs for equipment, drugs and supplies and helped to distribute those supplies as they became available; supported the introduction of quality improvement methods in FGPs; has organized training for FGPs on a variety of topics; and procured and distributed health education materials. In Kazakhstan, KAFP has been a strong advocate for family medicine both at the national level and in helping to educate doctors. In Uzbekistan, two associations have evolved: the SVP Association, which represents PHC facilities in Ferghana Oblast, and the GP Association which represents individual GP doctors, under the umbrella of the Physicians' Association.

Next Steps in Family Medicine

The strategy adopted thus far for the development of FM in the region remains fundamentally sound. Retraining of practicing doctors is the first priority, in order to produce rapid results, with the training of trainers as the first step. In the future, the vehicle for retraining may shift in some countries from intensive courses lasting a few months to CME spanning many years, due to resource constraints and the large number of providers needing retraining. To keep building the capacity of the retrained doctors through CME, it will be critical to keep developing CME trainers and such courses will be a priority.

A CME program is already in place in some oblasts of Kyrgyzstan and will be rolled out to the whole country with funding from ZdravPlus and the World Bank. Continuing Medical Education will play a key role, not only in deepening health workers' knowledge and skills in FM but also in keeping doctors abreast of new Clinical Practice Guidelines (CPGs) as they are developed and will also serve as a vehicle for the introduction of new programs. A variety of innovative approaches are already emerging in the region. The first CME modules have already been adapted for distance education, which holds out the promise of significantly reducing the cost of CME and being more convenient for health workers living in hard to access regions. In addition, Family Medicine bulletins are also being used for informal CME, with tests for readers to assess their knowledge.

The development of FM residency programs is also a priority, in order to train more young people as family doctors from the beginning. However, in a setting where specialty medicine has higher prestige than FM, policy changes and public education will be needed to produce higher enrollment in such programs. Training in family medicine should also go hand-in-hand with reform of medical education, addressing a range of problems such as the teaching of clinical practices that are not based on evidence, pedagogical approaches that emphasize theory over clinical experience, student selection and evaluation processes that often do not reward the best students or the highest achievement, accreditation of medical education programs and medical education financing policy.

Complementing Family Medicine Training

In addition to supporting Family Medicine, ZdravPlus also conducted a number of short training courses on priority health topics, mostly for PHC workers. In some cases, this was to rapidly upgrade providers' skills in health reform sites so as not to delay improvements in quality of care while doctors were going through a lengthier FM training. In others, it was because FM training was not yet accepted. And in others, it reflected a desire for special emphasis on certain topics because of their importance in public health or to reduce key causes of morbidity and mortality—and were later integrated into FM training. Many of these courses were based on WHO modules. Because these short courses were easier to monitor than the broad FM training, they also yielded many of the lessons learned during the life of ZdravPlus about how to improve quality of care—see box on lessons learned following Strategy 3.

Integrated Management of Childhood Illness

Introducing the WHO's strategy for the Integrated Management of Childhood Illnesses (IMCI) at the PHC level in all five Central Asian countries was a key strategy due to its potential to reduce child mortality and morbidity in the region. Training centers were set up, thousands of doctors and feldshers were trained on IMCI, and this training went hand-in-hand with Community IMCI. In addition, significant efforts were made to address systems issues, with *prikazes* adopted to allow health workers to apply the new practices and efforts made to ensure the availability of essential pharmaceuticals.

In addition to IMCI at the PHC level, ZdravPlus also worked with partners to develop two other training courses to support basic IMCI. A week-long program for patronage nurses takes advantage of their frequent home visits and has them educating parents and caretakers of young children on key health practices, identifying common illnesses and making recommendations for treatment or referral to a doctor when necessary. Piloted in Kazakhstan, this program holds great promise. Another course is a two-week long training for doctors working in hospitals, which familiarizes them with the basic IMCI program and updates their skills on management of emergency cases, especially cases of airway and respiratory distress, circulatory collapse, loss of consciousness and coma and severe dehydration. This course was developed with the USAID-funded Healthy Family project and was piloted in Ferghana Oblast, Uzbekistan.

Part of the IMCI implementation strategy at the PHC level was to use WHO's follow-up tools to assess IMCI implementation at the trainees' own workplaces some weeks after training. Results of such reviews in Karaganda and Almaty Oblasts indicated that the training had been successful.

- The majority of the medical workers trained in the program were able to demonstrate that they knew how to use IMCI in the presence of observers during follow-up visits;
- Seventy-four percent checked patients for the four main danger signs of IMCI related conditions: inability to drink or breastfeed, lethargy, vomiting after food or drink and convulsions;
- Eighty-six percent checked for the three main conditions covered by IMCI: cough and cold, fever and diarrhea; and

- Eighty-four percent of health care workers also followed the IMCI practices of assessing the child's overall nutritional status and 77 percent properly counseled mothers on breastfeeding and nutrition during the monitoring visits.

Many doctors told the monitors that the trainings made them feel more comfortable treating children and that mothers were appreciative of the counseling they received.

ZdravPlus added one new dimension to the follow-up visits, in the form of a review of patient charts to see what was happening when evaluators weren't present. The chart reviews showed some positive results, like more frequent use of breath counts and reduced prescription of antibiotics for children with ARIs; and important increases in checking the thirstiness of children with diarrhea. But the chart reviews also revealed some discouraging information and demonstrated that despite training many doctors had not incorporated IMCI practices into their day-to-day delivery of care. In many cases, doctors demonstrated a misunderstanding of IMCI diagnoses by failing to classify children with coughs as ARI patients and manage them accordingly. While children diagnosed with ARIs were generally not prescribed antibiotics, those with a cough due to bronchitis, laryngitis or other conditions usually received antibiotics, contrary to IMCI recommendations. In cases of diarrhea, the doctors made no record of assessing the child for dehydration and continued to follow old instructions to hospitalize these cases; they failed to administer salbutamol spray in asthma cases to quickly determine whether the child needed to be referred to a hospital (even though the spray was available in the facilities); prescribed unjustified antibiotics; and failed to treat cases where charts indicated that a child was probably suffering from anemia.

Experience with IMCI implementation revealed other issues, demonstrating how difficult it is to introduce evidence-based practices and change outdated clinical practices, including:

- Prikazes authorizing doctors to follow IMCI practices were not sufficient to waive old record-keeping requirements. Thus, doctors could not simply follow the quick and simple syndromic approach to assessing children, following IMCI procedures. They also had to continue making a diagnosis, using government-mandated lab tests and lengthy investigations of conditions. So implementing IMCI meant a double burden of work for the doctor.
- Some head pediatricians at the district level did not support IMCI and continued to conduct inspections as before, punishing providers for following IMCI protocols with respect to not hospitalizing children with minor illnesses or drug prescribing practices. Some were pushed by higher authorities to adhere to the old procedures. Understandably, under these circumstances, many providers hesitated to follow IMCI.
- The IMCI form is an important job aid to help providers manage care appropriately. However, it is not a part of the standard medical chart required in Kazakhstan, completion of which cannot be waived. Thus, doctors already heavily burdened with paperwork have to complete two forms. Moreover, since IMCI forms are not supplied by the system, doctors tend to give up following IMCI procedures when stocks run out and they revert to the procedures in the mandatory form.

Implementation of IMCI in Karaganda did not lead to fewer hospitalizations, as had been expected. Some of the reasons for this are the instructions requiring immediate hospitalization of any case of "acute intestinal infection" (diarrhea); a hospital payment system based on the number of beds filled, so that hospitals eagerly accept cases that could easily be treated at home; and the incentive of free drugs for hospitalized patients, while outpatients must pay for their own drugs; and parents and ambulances that automatically bring a child directly to the hospital, even for minor conditions.

Red Apple Reproductive Health Hotline in Kazakhstan

The Red Apple hotline is a gold mine of information when it comes to reproductive health: what are the advantages and disadvantages of various contraceptive methods? how much do contraceptives cost? where are they available? and much more…. Run by the Business Women's Association of Kazakhstan (BWAK) under a grant from ZdravPlus, the hotline provides information on family planning, safe motherhood, STI prevention, breastfeeding, anemia, menopause and other topics in eight cities across Kazakhstan. From the user's point of view, its three main attractions are that it is quick, confidential and free.

From ZdravPlus' perspective, the hotline supports the agenda of improving reproductive health, reducing reliance on abortion as a method of family planning and getting more information about the variety of contraceptives available to the population—important issues in a country where the main method of birth control is the IUD, backed up by abortion, and where hormonal contraceptives are widely believed to be harmful to health. The hotline is also a vehicle to help people take more responsibility for their own health.

The Hotline responds to over 5,000 calls per month and uses a range of creative strategies to promote its services on public transportation, in universities, in health facilities, on radio and TV and elsewhere. It has reached out successfully to men, young people, migrants, older women and other groups. As a result of a campaign aimed at youth, many teenagers, afraid to discuss intimate issues with their parents or teachers, used the hotline to get confidential answers to questions on contraception. Men usually ask about STIs and condoms. But hotline staff do more than just answer the phone. They also go into the community and—to give one example—work with parents to help them understand the importance of educating their children on reproductive health issues—that this is not simply the responsibility of schools or doctors.

One of the most remarkable accomplishments of the hotline has been BWAK's ability to ensure its sustainability, despite decreasing funds from ZdravPlus. By making personal visits to the Akim (mayor) of each city where the hotline works, or where she would like to see it work, as well as meeting with private companies, and sharing her vision that prevention is the surest form of treatment, Raushan Sarsenbaeva, BWAK's director, has expanded the hotline beyond the original five cities. By the end of 2004, ZdravPlus was funding only three hotline sites, while BWAK has found outside funding for the hotline in five other cities.

Family Planning

ZdravPlus trained large numbers of PHC providers on family planning in Kazakhstan, Kyrgyzstan and Uzbekistan, with a view to integrating these services into PHC and making them more accessible than they had been under the old system, when they were provided in women's consultations in urban areas. Ideally, family planning training would be incorporated into FM retraining programs, as was done in Kyrgyzstan and later in Uzbekistan, paving the way for thousands of doctors and nurses to be trained for years to come. In Kazakhstan, however, family planning training was conducted as a free-standing course, since FM there has not been accepted nationwide. Data indicate that this integration strategy was remarkably successful. In a 2003 study of the scope of services provided by FGP doctors in Kyrgyzstan, over 95 percent provided family planning services.

In an environment where the IUD dominates, other methods are seen with widespread skepticism. Besides just introducing family planning into the family physician's scope of services, ZdravPlus also sought to dispel misinformation about hormonal methods and broaden the method-mix. This met with some success, with increases in use of hormonals in key pilot sites in Kazakhstan and Uzbekistan—but not in Kyrgyzstan. The results in Kyrgyzstan likely reflect two realities. First, that family planning training there was rolled out on a large scale through FM training, within a curriculum that didn't specifically emphasize hormonal methods. And second that it is harder to achieve distinct objectives through training alone, without the support of concurrent population education activities.

Another facet of the project's work in family planning was to monitor and improve the quality of services available. Quality improvement activities in Kyrgyzstan have proven highly successful and are summarized under Strategy 5 of this report. Similar activities in Kazakhstan were also undertaken.

In Uzbekistan, the results of family planning training were assessed through follow-up visits a few weeks after the training. The assessment measured providers' knowledge and skills. Average *knowledge* scores, based on a multiple-choice test, increased quite significantly during the training and retention of that knowledge was high at the time of the follow-up visit among all types of health workers. Providers' *skills* were measured through observation, using checklists. Not

surprisingly, the ob/gyns scored higher than the PHC doctors or mid-level staff on skills. Their strongest skills were in IUD insertion (91 percent average score at follow-up), while they did less well in counseling. Primary health care doctors and mid-level staff also achieved high skills scores, even though the provision of family planning services was something quite new to most of them.

Another emphasis in family planning was to teach rural midwives to provide FP services, including IUD services. This activity started with a pilot project in Kyrgyzstan, where two-thirds of the population lives in rural areas, often with no doctor and only a midwife to see to all of their basic health needs. Yet these midwives are not authorized to provide many important public health services, including IUD insertion and removal. In fact, their role in the provision of health services usually centers on paperwork and support functions for doctors—where there are doctors. Training midwives in rural areas to provide family planning, including IUD services, supported the health reforms by giving them a new, highly responsible role in providing clinical and counseling services, while also improving access to an important health service for rural women.

In implementing this pilot project, ZdravPlus' first priority was to ensure the safety of clients, so procedures were put into place to minimize the risks for women seeking services from the midwives:

- A two-week training for midwives, with intensive clinical practice;
- Follow-up visits over six months to observe the midwives providing services in their own clinics;
- Interviews with clients at home about their experience with the services.

Initially, just 40 midwives in one district were trained. Six months later, they had provided contraception to over 1,800 women, of whom 26 percent received IUDs. Follow-up visits found the midwives' clinical skills to be at a consistently high level, and they often improved over time. For example, clinical skills in IUD insertion increased from 89 percent right after the training to 98 percent 5-6 months later. And 98 percent of clients were satisfied with the service, stating that they would recommend their midwife to a friend or relative.

Based on these results, the pilot was expanded to additional districts in Kyrgyzstan, still under the pilot protocol—and again, the results were positive. Early in 2005, the MOH issued a decree authorizing these services to be expanded nationwide and for the training to be incorporated into continuing midwifery education. Neighboring Uzbekistan has also piloted this project successfully and plans are in place to continue the work there with funding from USAID and an Asian Development Bank loan. So a solid foundation is in place for midwives to assume this expanded role on a larger scale in Central Asia and to make an important health service more accessible to rural populations.

Nutrition and Anemia

In Uzbekistan, the government asked ZdravPlus to address anemia as its first priority for improving PHC services, because it is so widespread and has such debilitating effects on MCH, children's intellectual abilities and adults' productivity. In the absence of iron supplements and food fortification programs in its pilot sites, ZdravPlus opted for a nutritional approach. Initially, this met with outright opposition from several senior MOH officials, who believed that a nutritional approach would be ineffective and that ZdravPlus was promoting incorrect information because it was at odds with traditional nutrition recommendations. Project staff decided to postpone training and invite WHO consultants to conduct orientation sessions for policymakers on international approaches to nutrition and anemia, with the result that the opposition diminished. Clinical training for PHC workers, accompanied by health promotion, could be launched.

The training was based on WHO manuals and emphasized nutrition for pregnant women, mothers and young children. It introduced the concept of nutritional assessment of patients and included up-to-date dietary guidelines for good nutrition, the nutritional requirements of children, breastfeeding and complementary feeding, growth assessment of children, and nutrition related to the prevention of anemia. All topics were taught within an Uzbek context, using foods commonly eaten in Uzbekistan. Health workers were given materials, including a booklet with essential information about anemia and nutrition and a poster on the Body Mass Index. Much of the information was shocking to providers because it was so radically different from what they had been taught—for example, most of them thought that a newborn baby should be given water and recommended early complementary feeding. It was also the first time they were learning about modern growth monitoring techniques for children and their importance in monitoring child health.

The training on nutrition and anemia had a profound effect. It convinced some senior policymakers to accept modern approaches to nutrition and encouraged them to think in terms of preventing anemia and other nutritional disorders, rather than focusing only on curing them. And once the training began to reach large numbers of health workers, there was a surge in interest from the medical institutes who asked ZdravPlus to help them incorporate nutrition into their curriculum for medical students, paving the way for the next generation of doctors to graduate with better knowledge on this crucial health topic.

Hypertension

Improving doctors' practices on hypertension was also priority since cardiovascular disease is a major cause of mortality in all countries of the region. Towards this, ZdravPlus conducted free-standing training on hypertension in Kazakhstan and Uzbekistan in addition to including this topic in FM training. Not only is hypertension an important topic from the point of view of mortality, but it is a service that can draw men into PHC, while most other services are oriented primarily toward women and children.

Uzbekistan

ZdravPlus developed an intensive two-day course for SVP doctors covering diagnosis and treatment of hypertension, based on WHO recommendations. It includes the proper technique for blood pressure measurement—a skill not always mastered by PHC doctors—and works with doctors to be sure their tonometers are correctly calibrated. The doctors learn how to classify an individual's risk of cardiovascular disease, taking into account risk factors—something new in the region. Treatment protocols introduce another new concept, non-drug treatment, and where drugs are required, emphasize the benefits of oral medications over injectables, which have traditionally been the preferred method of administration. The course also teaches how to diagnose a hypertension crisis and provide urgent care—but recommends that cases requiring such care be referred to a hospital.

ZdravPlus identified reduced use of injectables (such as spasmolitics) as a key indictor for hypertension because it would indicate improved management using oral medications and would also show that doctors understood that hypertension is a chronic disease and not an occasional sickness. Based on reviews of patient charts in PHC facilities in Ferghana, Uzbekistan, use of injectables for management of hypertension was almost halved, from 69 percent in 2000 to 35 percent in 2003-2004. This result, however, is probably due more to training on rational drug use, particularly by the Drug Information Center, rather than to the hypertension training, since the latter did not start until 2004.

Kazakhstan

In 2002, a three-day training course on hypertension was provided for doctors in FGPs, polyclinics, hospitals, other specialists and ambulance workers in Karaganda Oblast. In addition, the Karaganda Drug Information Center made information available about rational pharmaceutical

use, including management of hypertension. Evaluation of this training in Zhezkazgan found positive changes in treatment practices. FGP physicians prescribed first line treatment drugs much more frequently in the year after the training, with prescriptions for diuretics increasing from 30 to 59 percent, and prescriptions for beta-blockers from five to 30 percent. Moreover, doctors almost abandoned the prescription of old, ineffective medications. On the other hand, the evaluation found no change in the doctors' abilities to diagnose or manage hypertension or to keep better records. And for reasons that are unclear, chart reviews of FGP doctors' prescribing practices in three cities in Karaganda Oblast (including Zhezkazgan) showed that use of injectables rose from 14 percent in 2000 to almost 17 percent in 2001-2002 and then plummeted to zero in 2003-2004.

Kyrgyzstan

Training on hypertension is included in FM and chart reviews undertaken in 2003 showed that across the country, on average, 77 percent of patients were treated in conformity with clinical protocols—substantially more than the 49 percent appropriately treated the previous year. Use of injections to treat hypertension was also very low, standing at 1.5 percent in 2003.

Rational Drug Prescription

Much work is needed in the region to improve doctors' prescribing practices and ZdravPlus invested substantial resources into the effort to improve these, particularly at the PHC level, in all countries except Turkmenistan. The project also conducted training for academics and, to a lesser extent, for hospitals, and there were also efforts made to educate patients (see the Population Involvement section of the report) on rational drug use, particularly with respect to antibiotic use and, to a lesser extent, injections.

The rational drug prescription training courses were designed to address not only over use of antibiotics and injections, but also prescription in line with the country's EDL, promotion of generics—unknown in Soviet times—and the avoidance of unnecessary prescriptions. Areas of special emphasis were the avoidance of antibiotics for children with an ARI and avoidance of injections for hypertension, consistent with two important training priorities for the project.

There were some fairly dramatic changes in PHC doctors' prescribing practices in Ferghana Oblast, Uzbekistan, as evidenced by chart reviews conducted in 2000 and again in 2001-2002 in PHC facilities in the oblast. As can be seen in the table below, Uzbek PHC doctors' prescription practices did not compare favorably with those in 17 other low and middle income countries at the start of the project. By the time of the second survey, however, the average number of drugs prescribed was the same as in the other countries studied (2.2) and the percentage of patients prescribed antibiotics was similar, at 45 percent. On other indicators, they still lagged behind, but substantial progress was made. There was an encouraging decline in the percentage of patients prescribed injections, from 57 to 45 percent, and an increase in the percentage of generic drugs prescribed, from 38 to 52 percent. In fact, the only monitored indicator that didn't show progress was the percentage of drugs prescribed that were on the Essential Drug List, which actually fell from 79 percent, a level close to that of the other countries, to 67 percent—well below the other countries.

Ferghana, Uzbekistan, and Karaganda, Kazakhstan, PCH Doctors' Prescription Practices over two Time Periods compared with those of 17 Other Countries

	Average in 17 countries	Ferghana Uzbekistan		Karaganda Kazakhstan	
		2000	2001-2002	2000	2001-2002
Average number of drugs prescribed	2.2	2.9	2.2	3.2	2.9
Percent generic drugs prescribed	64	38	52	30	27
Percent EDL drugs prescribed	85	79	67	51	42
Percent patients prescribed injections	29	57	45	17	17
Percent patients prescribed antibiotics	43	57	45	36	23

Source for the average in 17 low or middle-income countries: M. Pavin, T. Nurgozhin, G. Hafner, F. Yusufy and R. Laing, "Prescribing Practices of Rural Primary Health Care Physicians in Uzbekistan," Tropical Medicine and International Health, Vol. 8, No. 2, p. 182, February 2003.

In Karaganda Oblast, Kazakhstan, similar chart reviews showed that, at the baseline, PHC doctors there were doing better than in the other countries with respect to the percentage of patients prescribed injections or antibiotics and they maintained that position at the time of the second survey, even decreasing the percentage of antibiotics prescribed to a very positive 23 percent level. On the other indicators, however, the Karaganda doctors were not performing as well as those in the other countries—or even as well as the doctors in Ferghana—and they made progress only with respect to the average number of drugs prescribed, which dropped from 3.2 to 2.9. The percentage of generic drugs prescribed and EDL drugs prescribed actually fell.

There were major reductions in the use of injections for hypertension, as reported in the preceding section on hypertension, as doctors learned to manage this condition as a chronic disease instead of an episodic event. In terms of prescription of antibiotics for children under age five, Karaganda made important progress, from 42 to 13 percent, while Ferghana met with less success. There was a drop in antibiotic prescriptions between 2000 and 2001-2002, but the percentage rose again by 2003-2004. So overall, there was a slight increase, from 65 in the first chart review to 68 percent in the third.

Institutionalization of Short Courses

A key strategy with all these courses was to institutionalize them in family medicine training in Kyrgyzstan and Uzbekistan, so that all health workers going through retraining would benefit from these courses. This has been an extraordinarily cost-effective strategy. In Uzbekistan, an initial investment in training 160 trainers resulted in almost 2,000 PHC doctors at eight medical institutes being trained in the institutionalized modules in one year alone. In the process of training GP trainers at the medical institutes, ZdravPlus also included some faculty from the relevant undergraduate programs, exposing them to updated clinical practices and modern teaching techniques, thus influencing undergraduate medical education at the same time.

Summery Service Delivery Strategy 2: Integrate Infectious Disease Services into PHC

Under the Soviet health care system, separate vertical structures existed (and in some cases still exist) for children, ob/gyn, internal medicine, oncology, psychiatry, TB and STIs. As ZdravPlus set out to re-organize the primary level of these vertical structures into one, cohesive primary health care facility staffed with doctors who could provide basic health services to the entire family, an effort was made to integrate the vertical structures for infectious disease services, particularly those for STIs, TB and malaria, into primary health care.

Due to the nature of these vertical systems ZdravPlus took a different approach to integrating each into PHC. The most extensive work was done on STIs, while a concerted efforts were made to integrate TB and malaria services via the FM re-training modules and continuing medical education courses through the FMTCs.

Given the huge stigma attached to having an STI it is natural to expect that an infected person would want the utmost confidentiality in obtaining treatment. Under the Soviet system this was not at all possible – not only did a potential patient have to visit an STI doctor at an STI hospital, already a conspicuous action, but the process of diagnosis was long and if the patient did have an STI they were forced to contact all of their past partners to inform them of the potential risk to their health. Not surprisingly, people would avoid the STI hospital and go to unlicensed private clinics, self-treat, or not bother with treatment at all, and avoid the social disgrace of having the community know about their STI.

The ZdravPlus strategy to tackle this problem was undertaken in two steps:

1) Conduct a pilot project to assess the feasibility of having PHC doctors provide infectious disease services; and
2) Convince the MOH of the cost-savings and improved health outcomes associated with making these services available at the community level.

Implementation of this strategy is still in the beginning stages in Central Asia and was implemented only in Kyrgyzstan. But, progress there was significant. Patients, who could now receive anonymous, reliable services from their FGP, expressed their satisfaction with the services and ZdravPlus was able to show average costs of one third to one tenth the cost of providing these services at the STI hospital. The MOH is now hoping to integrate this service in to PHC throughout Kyrgyzstan.

SERVICE DELIVERY STRATEGY 2: INTEGRATE INFECTIOUS DISEASE SERVICES INTO PHC

Integration of infectious diseases services into PHC presents an enormous challenge in a post-Soviet setting. There are many reasons for this: these services are provided by large cadres of specialists whose livelihoods depend on a continuous flow of patients needing these services; each disease has its own separate network of clinics and hospitals which were specifically built to provide those services and symbolize that specialty's power; rigid and antiquated infection prevention and control requirements that lead doctors and patients to fear contact with persons with infectious diseases; and finally a complex web of rules and regulations make it extremely difficult to change anything in the system, as does a simple reluctance to change the status quo.

Regardless of all these difficulties, it is essential that basic infectious disease services be incorporated as a component of primary health care. At the PHC level these diseases can be prevented or detected early and treated as effectively as possible by making infectious disease services available in an un-stigmatized setting, close to where people live and work. Thus, providing better integrated care where early detection and co-infection is more likely to take place, as well as reducing the costs associated with maintaining so many buildings.

Over the past five years, ZdravPlus has worked to integrate services for sexually transmitted infections and TB into PHC, as well as undertaking more limited work related to malaria.

Sexually Transmitted Infections (STIs)

In the system inherited from the Soviet Union, patients with various STI signs or symptoms have traditionally been required to see a physician specializing in dermato-venereology (DV) at special DV clinics or DV hospitals. However, services and treatment are not patient-friendly, are costly and often involve unnecessary hospitalizations. Additionally, contact-tracing is mandatory, so patient confidentiality is not protected. To avoid the embarrassment and stigma of visiting a special DV clinic, many people choose to treat symptoms with self-prescribed medications purchased from pharmacies or to visit unregulated private clinics. Thus, many STI cases go undiagnosed or are improperly treated which makes it difficult for Ministries of Health to monitor prevalence of STIs.

In Kyrgyzstan, the MOH, Family Group Practice Association and ZdravPlus conducted two pilot projects to assess the feasibility of having Family Group Practice (FGP) doctors provide confidential treatment and prevention services for the most common sexually transmitted infections and were able to show positive results. The pilots used WHO's syndromic case management approach which simplifies diagnosis and treatment, is inexpensive, does not require lab tests, and interrupts infection as quickly as possible. One of the pilots was co-funded by the Soros Foundation and the other by WHO.

The pilot sites in Kyrgyzstan provided treatment and prevention services for the most common STI syndromes, including vaginal discharge, urethral discharge, and genital ulcers. All necessary medications for patients treated in the pilot programs were provided free of charge. Implementation of the pilots went hand-in-hand with a public information campaign to make the public aware of the new services in FGPs and to educate them about STIs.

Over 2,300 patients were treated during the two six-month pilots and patients' response to the new services was clearly positive. In Jalal-Abad, Kyrgyzstan, 629 patients completed an optional, anonymous survey before exiting the clinic and nearly all of them described their consultation as very good (62 percent) or good (37 percent). Patients gave high marks to family doctors trained through the pilots for their knowledge regarding STIs, attention to confidentiality, tactfulness, and

their provision of STI information. The majority of respondents stated that they would recommend STI care provided by family doctors to their friends.

Significant cost savings were shown for STI treatment, with the average cost per case using the syndromic case management approach in a PHC setting approximately one third to one tenth the cost of treating a similar case in the DV outpatient dispensary.

The pilots also demonstrated that, by working together, dermato-venereologists and primary care physicians can effectively treat STIs—in contrast to the traditional view that STI treatment can only be provided by dermato-venereologists. As evidenced in the pilot settings, family doctors can care for the majority of routine STI patients suffering from common complaints such as vaginal discharge, urethral discharge or genital ulcers. However, difficult cases and those with more serious complications should continue to be referred to dermato-venereologists.

Encouraged by the results of the initial pilots, the MOH in Kyrgyzstan is eager to integrate syndromic case management of STIs into PHC nationwide.

Tuberculosis (TB)

As was the case for STIs, the Soviet system had an expensive hospital-based vertical TB care system, along with a network of outpatient TB dispensaries. Initially, from 1997–2001, the Manas health reform program in Kyrgyzstan had a separate team of tuberculosis educators who provided a three-day TB Directly Observed Treatment Short course (DOTS) strategy to a total of 2,823 feldshers, FGP doctors and nurses. In order to institutionalize DOTS training further into the KSMIRCE's national FGP retraining program, ZdravPlus and Project HOPE provided a five-day DOTS TOT course for most of the KSMIRCE's 33 family medicine physician teachers and a few of their 34 nurse teachers. Starting in 2003, the portion of the FGP doctors' four-month retraining curriculum devoted to tuberculosis was increased from one day to three days, in order to allow for the full DOTS program. Since then over 875 FGP doctors have completed the full DOTS course as part of their retraining program. The goal of this training is to shift much of the responsibility for case finding and continuation-phase treatment from the vertical TB care system to the national primary care system.

To provide further DOTS reinforcement to FGP doctors, the Kyrgyz-Finnish Lung Health Program, ZdravPlus and The World Bank began collaborating in 2004/05 to help the KSMIRCE provide WHO's "PAL" (Practical Approach to Lung Health) program as the main topic for the 2005 continuing medical education cycle. Through this CME approach, over 1,000 rural FGP doctors will complete the five-day PAL program, which includes a two-day overview of DOTS. A nursing version of the PAL course is also being developed to use as the main topic for the 2005-06 FGP nurses CME cycle. The CME program for both doctors and nurses includes an on-site monitoring visit, which should provide valuable data by the end of 2005 regarding the effectiveness of the training.

Malaria

In 2002, an outbreak of malaria threatened public health in southern Kyrgyzstan. Malaria was re-emerging after a 30-year absence, so there was little knowledge of how to recognize and treat the disease or how to educate the population on its prevention. After 2,750 cases were diagnosed in summer 2002, an assessment by the Centers for Disease Control (CDC) predicted that the problem would continue to grow. To address this, the KSMIRCE joined with ZdravPlus and the NGO Merlin to train FM faculty from the southern FMTCs. With funding from the World Bank and USAID's START training project, these trainers provided one-day trainings for essentially all rural doctors in southern Kyrgyzstan in 2003. The course covered the recognition of malaria symptoms, treatment options for infected patients, and public education. The existence of a network of FMTCs and FM trainers allowed for this swift, comprehensive, and relatively

inexpensive response, which hopefully contributed to the decline in total malaria cases to 400 in 2003 and only 100 in 2004.

The integration of infectious diseases services into PHC has raised a number of issues that need to be addressed. PHC doctors have already dramatically expanded the range of services they provide and, understandably, they are reluctant to take on a whole new set of services so long as their salaries remain so low that they are forced to seek income from other sources. In addition, PHC facilities are not properly integrated with infectious diseases services. Importantly, drugs do not always reach the PHC level. And data on the incidence of diseases, as well as cure rates, often fall through the cracks. Plans for the future include integration of basic STI, TB and HIV services into PHC in the context of broader reform of infectious diseases services and the Sanitary Epidemiological Services (the Soviet equivalent of a public health service), which has not yet benefited from health reforms.

Summery Service Delivery Strategy 3: Strengthen Support Systems for Improved Quality of Care

As already illustrated ZdravPlus is primarily engaged in providing technical assistance and training. Improving quality of care through building capacity, up-dating knowledge and educating on practical skills. However, the impact of an increase in health workers' capacity to provide basic services can be reduced without the proper support systems. To strengthen these support systems and solidify the impact of provider trainings, ZdravPlus targeted a few areas which have significant impact on primary health care, such as equipment provision, laboratory services, pharmacy, and accreditation of medical facilities.

Lab Trainings

In both Uzbekistan and Turkmenistan, ZdravPlus provided trainings for laboratory workers. In Uzbekistan this was done in support of a World Bank initiative to outfit PHC facilitates with laboratories; they purchased the equipment while ZdravPlus provided the training on how to use it. In Turkmenistan this training was done at the request of the MOH. The training is based on the ZdravReform manual, *Basic Laboratory Methods for Primary Care Facilities in Transitional Countries*. The course covers clinical chemistry, hematology, microbiology and parasitology as well as quality assurance, safety and prevention of infection, and use and care of equipment.

Pharmacy

Pharmaceutical issues in Central Asia include lack of availability, high prices, poor quality, over prescription by doctors and improper use by patients. In addition, drugs are supposed to be free at hospitals meaning that the population would often skip going to their PHC facility in order to receive free drugs. ZdravPlus took a multi-pronged approach to these issues, working with governments on pharmaceutical policy, designing and introducing out-patient drug benefit programs, and establishing Drug Information Centers (DIC) to provide information to the public and physicians on Rational Drug Use.

Facility Accreditation

Under the Soviet system health care facilities and physicians were held responsible for poor health outcomes and were required to meet a myriad of rules and regulations, with failure to comply or meet standards punishable by steep fines. ZdravPlus has helped to change that system in Kyrgyzstan with its support of the Medical Accreditation Commission (MAC). The Commission ensures quality of care and a patient focused facility by rewarding facilities that meet certain standards as opposed to punishing rule violators. As of the end of ZdravPlus, MAC had accredited 135 health facilities throughout Kyrgyzstan.

SERVICE DELIVERY STRATEGY 3: STRENGTHEN SUPPORT SYSTEMS FOR IMPROVED QUALITY OF CARE

Improving health providers' skills is a crucial element of improving the quality of care—but on its own is not enough. Proper infrastructure, equipment and other support systems are also essential and ZdravPlus worked to ensure that these were in place. Areas of emphasis for the project were equipment, laboratories, pharmacy and facility accreditation.

Equipment

As a technical assistance project, ZdravPlus was not in a position to make major investments in upgrading facilities and procuring equipment, though both were badly needed throughout the region. By working closely with the World Bank and the Asian Development Bank, however, ZdravPlus has been able to build highly effective synergies with the banks investing in the physical facilities, while ZdravPlus focused on the technical aspects of quality care, like the content of clinical training and systems to accredit health care facilities. Project staff played an important role in developing specifications for equipment to be procured by the banks, ensuring that items would be appropriate to low resource settings. It also helped humanitarian assistance organizations develop lists of needed equipment and supplies to be donated and facilitated the distribution of such equipment. In addition, ZdravPlus ensured that PHC workers were trained to use equipment that was unfamiliar to them, so that it would not just sit on a shelf to impress visitors.

Laboratories

Locating basic laboratories in PHC facilities can contribute to reducing referral rates to higher-level facilities and many of the facilities upgraded by governments in the region, often with World Bank or Asian Development Bank funds, include laboratory space and equipment. However, laboratory technicians in PHC facilities do not always know how to use the equipment. To rectify this, ZdravPlus has provided laboratory training at the PHC level in several countries, based on the ZdravReform manual, *Basic Laboratory Methods for Primary Care Facilities in Transitional Countries*. The course covers clinical chemistry, hematology, microbiology and parasitology as well as quality assurance, safety and prevention of infection, and use and care of equipment.

Uzbekistan

The World Bank-assisted Health project supplied SVPs with laboratory equipment but it soon became apparent that laboratory workers needed training in the use of the new equipment. Working with the US Centers for Disease Control and Prevention (CDC), ZdravPlus trained a cadre of trainers and in 2002/2003 began training SVP lab technicians. The course was very practical, covering all the steps involved in urine analysis, blood analysis, vaginal and urethral discharge and parasitology. Follow-up lab visits to SVPs in seven rayons in Ferghana, looking at equipment and supplies, safety measures, disinfection, quality control and the lab technician's skills showed that overall, the facilities and their staff achieved an 89 percent score against a facility checklist. However, these visits also revealed that SVPs weren't replenishing their supplies of reagents, so the project made sure that lab techs and head doctors knew that they could purchase these supplies from their facility budgets and having reagents in stock was made a precondition for participation in future trainings.

A key issue to emerge from the lab training was the over-diagnosis of anemia – a widespread health problem in Uzbekistan – because SVPs were not properly calibrating their Sali hemoglobinometers. A small operations research project compared the results between Sali and modern hemoglobinometers and found that the Sali hemoglobinometers consistently overestimated the diagnosis of anemia. This led to the re-calibration of the hemoglobinometers, decreasing the incidence of anemia from 90 to 45 percent in one rayon of Ferghana Oblast over

about a four-month period. Subsequently, this issue was addressed oblast-wide through a quality improvement project.

Turkmenistan

Laboratories in Turkmenistan's Houses of Health generally suffer from a low level of capacity, and laboratories in diagnostic centers and hospitals have declined in recent years. This is due partly to the difficulty of implementing the complex protocols for lab testing and diagnostics required by the government, without access to the necessary equipment, reagents and other supplies.

ZdravPlus' laboratory training introduced in Turkmenistan in 2002 provides simplified testing procedures and processes based on international standards and experience. The course takes place in a laboratory facility, giving participants the opportunity to practice their skills in a practical, hands-on environment which is important because laboratory training at medical teaching institutions is very theoretical and does not offer students the opportunity to practice what they are learning. Trainees return home with a copy of the training manual in either Russian or Turkmen.

Over 600 laboratory workers, including lab physicians, nurses, feldshers, and lab assistants from various levels of the health system – Houses of Health, diagnostic centers and hospitals – have been trained. The training has been well received by the MOH, the lab trainers and the trainees, with some trainees reporting that this was their first opportunity to refresh and update their skills in over 20 years.

In part due to the success of these lab trainings, ZdravPlus was asked to expand the program. Providing such basic training and simple to use techniques to lab technicians is an important step in strengthening the health care provided in rural areas where people have less access to high quality medical care.

Pharmaceutical Policy and Availability

The project's work in pharmacology focused largely in Kazakhstan, Uzbekistan and Tajikistan. In Kyrgyzstan, ZdravPlus coordinated pharmacology activities with the WHO-supported Drug Information Center.

Initial emphasis was on helping governments adopt national drug policies, with the intention of helping them implement these policies once adopted. Kazakhstan, Uzbekistan and Tajikistan all adopted solid policies, and Kazakhstan went beyond that to adopt an implementation plan, while Tajikistan is in the process of developing such a plan. These policies will help the countries to completely address pharmaceutical issues at the national level by developing and applying internationally recognized tools such as Essential Drug Lists to improve drug availability, accessibility, quality and safety as well as rational drug use. ZdravPlus went on to work with its counterparts in all these areas.

Pricing and availability surveys are an important tool to influence the availability and affordability of drugs and ZdravPlus conducted such surveys repeatedly in Kazakhstan, twice in Uzbekistan and once in Tajikistan. The Kazakhstan surveys showed that drug availability was consistently high. In 2001, out of 80 essential drugs, 91 percent were available and, in 2004, 93 percent of 28 monitored drugs were available. The average price, however, was also high—although the situation improved over the life of the project. In 2001, it stood at 402 percent of the median international price and, encouragingly, this fell to 342 percent in 2004, possibly at least in part due to continuous price monitoring. In Uzbekistan, the average accessibility of 29 essential drugs in 15 drugstores in Ferghana was just 50 percent in 2000 and this increased dramatically to 90 percent in 2004, probably because of the introduction of currency convertibility and the opportunity for drug companies to import larger quantities of drugs. As far as prices are concerned, in Uzbekistan, customers paid 243 percent of the median international price for the

essential drugs on the list in 2000, but there was little room to work on pricing issues over much of the life of the project due to the lack of currency convertibility. After currency convertibility was introduced, availability improved, as already noted, but the value of the Uzbek soum fell, likely accounting for the rise in average drug prices to 300 percent of the median international price in 2004.

In addressing pharmaceutical issues, it was not enough to simply work on increasing the availability of essential drugs and trying to bring down their cost, doctors' drug prescription practices also badly need to be modernized. In addition to conducting numerous trainings on rational drug use ZdravPlus also worked regularly to update pharmacy education programs in the region. This culminated in the inclusion of modern programs on rational drug use and rational drug management into undergraduate and postgraduate training programs for doctors and pharmacists in Kazakhstan's National Program on Health Sector Reform and Development; adopted in 2004.

Outpatient Drug Benefit Promotes Utilization of PHC

The major ZdravPlus accomplishment in the pharmacy arena was the development and implementation of Outpatient Drug Benefits (ODB) in Kyrgyzstan in 2001 and Kazakhstan in 2004.

The introduction of an ODB is a key aspect of the health reforms and an important step in supporting PHC. The fact that drugs have traditionally been free for many patients in hospitals provided a powerful incentive for the population to go straight to the hospital for care, rather than to a PHC facility. Without making drugs available to outpatients, it would be very difficult to strengthen or expand the scope of services at the PHC level.

By subsidizing the drugs people need and letting them make those purchases at their local drugstores, the ODB works to reduce hospital admissions while still providing patients access to needed medications. The ODB was first tested in Bishkek in Kyrgyzstan and then rolled out nationwide. Data from Issyk-Kul Oblast shows that, following its introduction (from 2000 to 2001), visits to FGPs increased by six percent, emergency cases decreased by 38 percent and there was a 22 percent decrease in referrals to hospitals for primary health care sensitive conditions (asthma, hypertension, anemia, ulcers).

Kazakhstan also introduced an ODB, initially focused on young children with a plan for further expansion. However, implementation was uneven around the country because crucial information was not provided to the oblasts on time. Refinements of the system are in progress.

ZdravPlus worked with policymakers to help them understand the value of an ODB and, once the policy decision had been made, helped select the drugs, based on efficacy and cost. The Project also helped to monitor implementation.

At the same time as working on the ODB plans, ZdravPlus also worked in Kazakhstan and Uzbekistan on a different drug financing issue: procurement of priority public health drugs. For these drugs, the recommendation was to keep procurement at the central level, both to guarantee their availability and ensure that drug selection takes into account the best data about resistance patterns.

As a foundation for improving prescription practices, ZdravPlus did substantial work on drug selection. Building on its work to develop Essential Drug Lists (EDLs) under ZdravReform, project staff worked with Ministries of Health in all countries except Turkmenistan to revise and update EDLs and formularies at the national level and pilot sites. Opportunities to develop drug lists for PHC were limited because this was not a high priority for Kazakhstan which has not embraced PHC at the national level and Uzbekistan considered it too early to develop a PHC formulary. Nevertheless, a drug list was developed for PHC facilities in Karaganda Oblast, Kazakhstan, which has been a pioneer in supporting PHC.

Another key strategy to promote Rational Drug Use (RDU) was the establishment of Drug Information Centers (DICs) in Kazakhstan, Uzbekistan and Tajikistan. The DICs help in the development of evidence-based EDLs and formularies, they research and develop standard treatment guidelines, work with hospital pharmaceutical-therapeutic committees on drug prescription guidelines for their facilities, help health facility managers with simple methods of pharmaceutical and economic analysis to determine the most-used drugs and prioritize needs, and educate health workers and the public about appropriate pharmaceutical use. ZdravPlus has also played a key role in developing the Eurasia Drug Information Network which brings together DICs from eight CIS countries to share information and resources. Four meetings of this group have been conducted in Kazakhstan.

Drug quality has been an important concern in an environment where there are many fake drugs, storage conditions are often poor and a variety of other problems compromise quality. Building on its work to integrate TB services into PHC under ZdravReform, the project's work has centered on assessing the quality of TB drugs, in collaboration with US Pharmacopeia (USP) and Management Sciences for Health. The quality of a sample of TB drugs was tested in the US and Kazakhstan and showed that they were of good quality, conforming to the USP monograph, as shown by two Kazakhstan laboratories. At a conference to disseminate the results of the testing, it was recommended that TB drugs be tendered at the national level, as opposed to the current decentralized procurement of TB drugs. ZdravPlus also helped with technical specification of TB drugs to be procured in Kazakhstan.

Considerable effort also went into working with the National Center on Drug Expertise to help them set up a drug quality program and make effective use of the valuable drug testing equipment they had procured. Unfortunately, reorganization at the MOH, left the status of the center uncertain, and led to the indefinite postponement of these important plans.

Accreditation of Health Facilities

The accreditation of health facilities is crucial to quality assurance and the Medical Accreditation Commission (MAC) in Kyrgyzstan is a pioneer in the region. It is an independent entity working to improve quality of care in Kyrgyzstan by motivating health workers and managers to improve their facilities and the quality of their services, not through penalizing violators of rules—as was common under the Soviet system— but by rewarding institutions that meet certain standards of care. In addition to quality improvement at the facility level, accreditation contributes to the broader health system reforms as it is connected to eligibility for payment under the state health insurance plan.

MAC's accreditation criteria address five major aspects of a healthcare facility, including:

- patient focus;
- management of the facility;
- systems for guaranteeing safety and quality of care;
- ongoing staff training; and
- information management, including internal and external communication systems.]

At the Kiminskii District Territorial Hospital, in Chui Oblast, the hospital administration restructured and decreased the number of beds from 380 to 130 in order to concentrate their resources and improve the quality of care. MAC attributes these improvements largely to the accreditation process, noting that the facility is now committed to continuous improvement, as shown by the attention being paid to ongoing staff training.

Health care facilities are eager for accreditation and willing to foot the bill for several reasons. First, they see the benefit of the accreditation process in improving the facility itself, as can be seen from the example above; second, accreditation positions facilities to be consistent with the legal framework requiring accreditation for payment under the health insurance program; third, the accreditation guidelines give facilities clear and concrete guidelines to follow, based on international standards, in operating in a new and unfamiliar reform environment; and lastly, accreditation brings with it a level of prestige, in the eyes of the public, the staff, and the government.

MAC has accredited about a third of the 387 state health care facilities in Kyrgyzstan, including 55 hospitals, 55 FMCs, 23 FGPs and two sanatorium-resort facilities

Lessons Learned Lead to New Strategic Directions in Quality Improvement

In the course of implementing the programs described above, a number of important lessons were learned that led ZdravPlus to evolve in new directions about half way through the project (see strategies 4-6 below.) The key lessons and strategic shifts were the following:

- Countries were open to adopting evidence-based WHO approaches to service provision and prikazes based on WHO protocols. However, once adopted, prikazes are very difficult to change; the tendency being to take them as set in stone practices. Given this, along with the lack of knowledge on how to go about reviewing and revising clinical practices, the question was whether these new prikazes would ever be updated once the donor community left. This led ZdravPlus to the conclusion that **the most sustainable way to improve clinical practice was to introduce the concept of EBM**—a concept largely unfamiliar to the medical community in the region—helping them to learn how to search clinical evidence for effective approaches to manage clinical conditions, keep in touch with developments in clinical practice, and continue to update their practices on their own.

- In the process of strengthening PHC, ZdravPlus repeatedly found that PHC doctors encountered problems with specialists higher in the system. These specialists were accustomed to establishing the medical practices which were to be followed at the PHC level and they often rebuked or punished the PHC doctors for following the new practices they had been taught or undermined patients' confidence in PHC doctors by telling them they weren't following correct procedures. This prompted recognition by ZdravPlus that **the content of medical practice needs to be changed by working with medical leaders at the Republican level**. These persons are in a position to influence national policy and bring on board their colleagues around the country.

- After training PHC providers in modern evidence-based practices, ZdravPlus repeatedly found that these providers had difficulty implementing the new practices because a rigid, over-regulated system enforced through fines and punishments worked against them. If it wasn't the specialists who blocked implementation, as outlined above, it was reporting forms or inspections that required PHC doctors to continue the old practices such as prikazes requiring that certain conditions be hospitalized, even though they can be easily managed at the PHC level. Under these conditions, providers often felt powerless to change their practices and use new methods. To show PHC level providers that they do have the power to improve their practices themselves and to further identify obstacles in the system **ZdravPlus introduced a Quality Improvement methodology**, which facilitates the identification and resolution of problems at the facility level by the PHC workers themselves.

- **Working at the PHC level, ZdravPlus became acutely aware of the need to work not only at that level of the system, but also at the hospital level to create better quality, integrated systems of care.** There are several reasons for this. First, hospitals treat large numbers of cases that can easily be managed at the PHC level (and often even at home), and they need to begin referring such cases to the newly-strengthened PHC facilities, instead of admitting them. Second, clinical practice in the hospitals is outdated and non-evidence-based, contributing to poor health outcomes. Hospital staff need to adopt improved practices and provide more intensive care for patients who are seriously ill, rather than filling beds with patients who do not need to be hospitalized. Third, hospitals are still usually the institutional umbrella for PHC, so that if hospital staff do not believe in the new approaches being taught to PHC providers, they can block providers from following them, as noted above. In recognition of these realities, ZdravPlus began to work more in "mini-systems," linking PHC with Central Rayon Hospitals.

Summery Service Delivery Strategy 4: Introduce Evidence-based Medicine (EBM) to Modernize Clinical Practice in a Sustainable Way

Evidence-based medicine has been defined as the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence-based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research. Evidence-based medicine differs greatly from the old-school approaches that still dominate in Central Asia, which rely on the opinions of senior doctors to set medical standards, and which are often rigid and unproven—meaning, at times, ineffective or even harmful medical interventions with needless cost to the health care system and to the health of the population.

ZdravPlus and ZdravReform had set out from the very beginning to train primary health care doctors in evidence-based clinical practices, with EBM promoted through all of ZdravPlus's clinical trainings, and EBM-based practices serving as the foundation for both clinical work and population education. About mid-way through the ZdravPlus project, however, we recognized that the introduction of EBM through medical leadership was the key to sustainable modernization of medical practice—that the leadership had to not only learn the evidence-based clinical practices, but to also understand and believe in the concept of EBM itself, thus moving EBM onto the policy-level, and integrating EBM into the health care system itself.

The strategy to do this was fourfold:

- Promote the concept of EBM, especially to medical leaders;
- Begin to develop local capacity to research and appraise medical evidence;
- Help counterparts develop clinical practice guidelines; and
- Support implementation of guidelines.

This work began with a series of seminars in cooperation with the Nordic Branch of the Cochrane Collaboration in Moscow for policymakers from Kyrgyzstan, Kazakhstan, Tajikistan, and Uzbekistan, and then further seminars and integration of EBM into medical education.

To bring EBM into mainstream practice, ZdravPlus worked with local counterparts to develop clinical practice guidelines (CPGs). A group of methodologists specialized in gathering EBM research were trained, and they worked together with technical teams and working groups of front-line practicing clinicians to develop and field test evidence-based guidelines for developing CPGs. CPGs meeting international standards were developed through such a process and approved by the MOHs in Kazakhstan (on hypertension), Uzbekistan (on iron deficiency anemia and hypertension) and were almost completed in Kyrgyzstan (on asthma in children and acute coronary disease). The guidelines include not only treatment recommendations but also prevention, diagnosis, and criteria for referral—especially important in the post-Soviet health care system, where medical practice has been strongly oriented to curative care.

Implementation of CPGs was the next step. In Kazakhstan, for example, ZdravPlus worked closely with the National Cardiology Institute to educate providers about the guidelines, and further efforts planned to support implementation under the next project.

To help institutionalize implementation of EBM in the health care system, an EBM Center was established in Uzbekistan and work is underway to establish one in Kyrgyzstan. An EBM Corner in the medical academy in Tajikistan and an EBM Training Center under KAFP in Kazakhstan help serve a similar research and education role.

Evidence-based CPGs are at the heart of ZdravPlus' work to improve the quality of health care. Compliance with evidence-based guidelines virtually guarantees good results, so they are the foundation for quality improvement activities, and further work on CPG development and implementation will remain a key tenet of any future project.

SERVICE DELIVERY STRATEGY 4: INTRODUCE EVIDENCE-BASED MEDICINE (EBM) TO MODERNIZE CLINICAL PRACTICE IN A SUSTAINABLE WAY

Evidence-based medicine* (EBM) has been at the heart of ZdravReform's and ZdravPlus's work from the beginning as all new practices introduced used EBM. It was only under ZdravPlus that we began to introduce PHC doctors and medical leaders to the concept of EBM itself. The project adopted a number of approaches to introducing EBM as a key aspect of sustainable modernization of medical practice. First, we sought to promote the concept of EBM, especially to medical leaders; second, we began to develop local capacity to research and appraise medical evidence; third, we helped counterparts develop clinical practice guidelines; and finally we supported the implementation of those guidelines.

Promotion of EBM

Since evidence-based medicine was a new concept in the region, significant foundation-building and sensitization of medical professionals was needed at all levels of the system, but it was, and still is, particularly important to promote EBM to the medical leadership who largely determine the content of medical practice. ZdravPlus built on the tradition of respect in the medical community for ideas and approaches developed in Russia and established a successful collaboration with the Nordic Branch of the Cochrane Collaboration in Moscow. Experts from the Cochrane Collaboration provided two ground-breaking seminars in Kyrgyzstan (in collaboration with WHO) and Kazakhstan for top-level policymakers from these two countries as well as Tajikistan and Uzbekistan. These seminars generated enormous interest in EBM and, from that time on, top MOH officials in the four countries began talking in official settings about the importance of EBM, the need to develop evidence-based clinical practice guidelines and setting up EBM Centers. In Kazakhstan, the MOH went on to organize a conference on EBM, produced an EBM journal and selected new approaches to clinical practices (many developed with ZdravPlus assistance). In Kyrgyzstan, the Kyrgyz State Medical Academy adopted a policy that all dissertations must be evidence-based in order to be accepted.

To promote EBM more broadly, ZdravPlus provided two workshops to train teachers from academic institutions and other influential bodies to develop a training module on EBM for teaching medical students and others. By the end of ZdravPlus, Kyrgyzstan, Tajikistan and Uzbekistan were preparing to start teaching EBM in academic settings at the undergraduate and postgraduate levels. These will be short courses explaining the basic concepts and methods of EBM and the design and use of clinical guidelines and protocols.

Researching Clinical Evidence

Researching evidence on clinical topics, and critical appraisal of that evidence, is the first step in evaluating clinical practices and developing new evidence-based materials, such as clinical practice guidelines (CPGs). ZdravPlus, in collaboration with KAFP methodologists and occasionally the Cochrane Collaboration, provided dozens of trainings (both introductory and advanced) to prepare methodologists for this task and donated computers and literature to enable the methodologists to work effectively.

* "Evidence-based medicine is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence-based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research…" David Sackett.

Development of Clinical Practice Guidelines

A number of new evidence-based CPGs were developed by methodologists working together with technical teams. The process of developing CPGs is critical in building support for the new practices. Because new CPGs need the support of medical leaders in order for them to be accepted and adopted, ZdravPlus began working with republican institutes, as the policymaking bodies on clinical practice, together with academic experts. Ideally, ZdravPlus would like to see responsibility for the development of CPGs devolved to professional associations, so that they begin to assume a new role in the regulation of clinical practice in their field. In Kyrgyzstan, the project was able to begin working with four professional associations on the development of CPGs—with varying degrees of success. However, CPGs should not only reflect the informed decisions of leading experts, but also need to be adapted to the realities of front-line service providers. So, ZdravPlus convened working groups, including oblast and district officials, PHC doctors, specialists and hospital workers and asked them to collaborate on initial guidelines. Once consensus is reached in the working groups, the guidelines are tested in the field to ensure that they are workable, before finally being submitted to the Ministry of Health for approval. In Uzbekistan, a manual was developed describing this process for developing CPGs.

Clinical Practice Guidelines meeting international standards were developed and approved by the MOHs in Kazakhstan (on hypertension) and in Uzbekistan (on iron deficiency anemia and hypertension) and guidelines were near completion in Kyrgyzstan (on asthma in children and acute coronary disease). It has proven quite challenging to achieve balanced guidelines in the environment of Central Asia, where medical practice has been strongly oriented to curative care. The new guidelines, however, include not only treatment recommendations but also recommendations for prevention and diagnosis along with criteria for referral. While all these components are important, the referral criteria are a particularly valuable tool for strengthening PHC and rationalizing use of specialist and hospital services. And, since the traditional long and complicated guidelines are not very user-friendly, ZdravPlus also included short job-aids with bullet points and/or algorithms that providers can use as a quick reference when seeing patients.

Implementation of CPGs

Evidence-based CPGs are only valuable to the extent they are actually implemented and ZdravPlus immediately began working with the Republican Cardiology Institute in Kazakhstan to implement the new hypertension guidelines. Starting with a seminar to familiarize leaders in the cardiology and internal medicine communities from around the country with the new guidelines, how they were developed and possible approaches to implementation; the Institute and oblast health departments were inspired to seek MOH funds to implement the new CPGs.

Key implementation strategies developed with the Cardiology Institute include dissemination of information about the guidelines through medical journals, rather than through mass distribution of the guidelines themselves, which would have been prohibitively expensive; training provided by the Postgraduate Institute through continuing medical education courses for both specialists and PHC providers, with copies of the new guidelines disseminated primarily through this training; and a quality improvement project in Karaganda to demonstrate effective implementation strategies and identify any obstacles to implementation.

It should be noted that, while ZdravPlus began the process of implementing new guidelines with the Cardiology Institute in Kazakhstan, it also supported the implementation of numerous other evidence-based guidelines through strategies such as training, follow-up visits to trained providers and quality improvement methods that are discussed elsewhere in this report. The collaboration with the Cardiology Institute on the implementation of new guidelines merits special discussion here because it was part of the new strategy to introduce EBM by working with medical leaders on the development and adoption of CPGs—and then on their implementation.

Establishing EBM Centers

Four countries have moved or are moving toward the establishment of an EBM Center as the focal point for incorporating EBM into their health systems. The most advanced of these, established in 2004 with technical and financial support from ZdravPlus, is at the Tashkent Institute of Advanced Medical Education (TIAME). The center is largely institutionalized, with its staff drawn from the institute, and includes a director, four trained EBM methodologists, a librarian and an EBM trainer. The center has a number of functions:

- Maintaining a library of EBM information;
- Researching clinical evidence for various purposes;
- Providing methodological support for the development of CPGs and other evidence-based materials; and
- Teaching and training on EBM.

In Kyrgyzstan, an EBM Center is under construction, with funding from the World Bank, and methodologists, a librarian and EBM trainers are already at work. In Kazakhstan, KAFP consolidated the ZdravPlus trained EBM methodologists into a center for EBM information and research. Meanwhile, the MOH in Kazakhstan is also very supportive of EBM, which is reflected in the government's State Health Care Program for 2005-2010, and is considering establishing an EBM Center. The ZdravPlus-assisted Drug Information Center in Karaganda has been developing CPGs, most notably the hypertension guidelines adopted by the Kazakhstan MOH. In Tajikistan, an "EBM corner" has been established at the State Medical University, in conjunction with the Drug Information Center, to sensitize faculty and students on EBM and EBM is being integrated into the academic curriculum.

Education on the development and implementation of evidence-based CPGs are at the heart of ZdravPlus' work to improve quality of care and ensure that the Central Asian medical community can continue to do so after the donors have left. Compliance with these evidence-based guidelines virtually guarantees good results, so they are the foundation for quality improvement activities.

Summery Service Delivery Strategy 5: Use Quality Improvement Methods to Support Compliance with Evidence-Based Practices

While the ZdravPlus project as a whole aimed to improve the quality of health care provided to the entire population, the quality improvement subcomponent focused on the use of specific tools and techniques to allow health care managers and providers to improve the quality of care at the facility level through the identification and implementation of systemic change. Our strategy in this area involved the introduction of methods to facilitate facility-level quality improvement through two primary mechanisms: Quality Improvement Systems (QIS) and Quality Improvement Pilots (QIPs).

Quality Improvement System

Initially piloted in a few FGPs of Issyk-Kul Oblast in Kyrgyzstan in 2001, the QIS aimed to create a supportive supervision system, focused on fostering improvement, as opposed to the old system, which had relied on punishing providers for poor health outcomes or not following regulations. In the QIS, family medicine trainers in the oblast took on an expanded role, serving as "curators", visiting the FGP quarterly to evaluate the facility based on a standard MOH checklist, as well as looking at client feedback and providers at work, followed by a self-assessment meeting of staff to evaluate, review, and develop an action plan for improvement.

The QIS led to concrete results in family planning services, prenatal care guidelines, patient satisfaction levels, and expansion of services offered on the FGP level. Just as importantly, the QIS empowered FGP staff to take ownership of their facility and to make improvements that *they* and the community think are important. The QIS system was expanded to reach virtually all of the FGPs in Issyk-Kul Oblast and has since expanded to reach about one third of FGPs nationally, including some in each oblast. The quality improvement system was later adopted in Zhezkazgan City, Kazakhstan, as a tool to improve family planning services, with results ranging from a new policy to allow FGPs to provide the family planning services previously available only from gynecologists, the establishment of reproductive health rooms in FGPs, the reduction of waiting times for patients by establishing an appointment system, and overall improved client satisfaction.

Quality Improvement Pilots

Launched in Ferghana Oblast, Uzbekistan in 2003, QIPs represent a more sophisticated quality improvement methodology, building on lessons learned through the QIS and implementation of trainings on IMCI and other topics. By creating multi-level quality improvement teams consisting of national and local-level experts as well as service providers from PHC, polyclinics, and hospitals, the QIPs bring facility-level improvements to the oblast or national level.

Three key concepts lay at the core of the QIPs: ***standards***, ***measurement***, and ***improvement***. Standards were designed to be evidence-based and relied on common sense. For example, the first standard for hypertension was to make sure that all patients had their blood pressure checked and the reading recorded at every visit. Measurement aimed to be simple, so that providers could analyze results themselves and easily track their progress—i.e., calculating the percentage of patients having their blood pressure checked.

At first, one facility concentrated on hypertension, another on IMCI, and a third on anemia. Based on lessons learned, the best practices and monitoring procedures were expanded to all three pilot facilities, and then further replication began throughout the oblast, one district at a time. The same methodology was rolled out to Karaganda City in Kazakhstan, with a QIP on IMCI implemented in the Maikaduk district.

In addition to showing significant clinical results, including improvements in diagnosis, treatment, and compliance, the QIPs have helped providers take improvement into their own hands, while also helping to change the prevailing attitude that providers should be held personally responsible for all of the problems in the population's health by involving senior officials in a process which revealed many obstacles within the health care system itself.

SERVICE DELIVERY STRATEGY 5: USE QUALITY IMPROVEMENT METHODS TO SUPPORT COMPLIANCE WITH EVIDENCE-BASED PRACTICES

Over the course of the project, ZdravPlus implemented a host of activities aimed at improving the quality of clinical care available in Central Asia. This included training, technical assistance in the development of CPGs and Essential Drug Lists, and much more. The term Quality Improvement here, however, refers to techniques and tools that can help health care managers and providers improve quality of care by identifying barriers and implementing changes in systematic ways.

In the first years of the ZdravPlus project, Quality Improvement activities were centered at the facility level, on the assumption that clinical practices could best be improved there and that the newly granted autonomy to PHC facilities through the reforms would allow them to address many other problems, such as availability of equipment or drugs. The most successful of these facility-based systems was the Quality Improvement System (QIS), which is now used by about a third of all PHC facilities in Kyrgyzstan and by all of the family group practices (FGPs) in Zhezkazgan, Kazakhstan.

Quality Improvement System

The QIS began on a pilot basis in Issyk-Kul Oblast, Kyrgyzstan, with a focus on reproductive health services. The system was designed to improve the quality of care and support the vision of an FGP as a client- and market-oriented health care provider, with staff that works together as a team to manage services and resources. It also sought to demonstrate the potential of a supportive supervision system as an alternative to the system inherited from the former Soviet Union that fines and punishes facilities for adverse health outcomes or infractions of the thicket of rules and regulations.

The QIS takes advantage of the clinical and interpersonal skills of trainers from the Family Medicine Training Centers, expanding their role to become "curators," a local term for supervisors. In the context of the QIS, the curators work with an FGP once a quarter, helping the staff of the facility to assess and improve the quality of services they provide, using four tools:

- Exit interviews to objectively measure quality from the clients' perspective and solicit clients' suggestions.
- A curator walks through the facility with a standard checklist, based on MOH standards—but also views the facility from the clients' point of view.
- The curator observes clinical staff providing information and services, again, using checklists based on MOH protocols; the skills of individual staff are assessed and immediate feedback is provided with a view to increasing competence—not to criticize or punish.
- A self-assessment meeting is then conducted, in which the entire staff of the FGP meets to identify problems in the quality of care, based on the results of the three tools above and on problems they themselves have identified. They then work as a team to prioritize problems, develop solutions and prepare an action plan, with each problem assigned to an individual who has lead responsibility for implementing the solution.

Three months later, at the next "round," progress is reviewed and the same cycle is repeated.

The QIS triggered a range of improvements, from better quality clinical and counseling services, to an improved, more client-friendly facility. A few examples:

- The first round of observation of services showed that doctors at the pilot FGPs were not following guidelines for contraceptive care, with an average score of just 63 percent against a compliance checklist. Training was provided and, by the second round, the score increased to 83 percent. The third round demonstrated sustained improvement, at 88 percent.

- Observations at the pilot sites also demonstrated that doctors did not follow prenatal care guidelines, with scores of just 47 percent against the checklist. After training, the score increased to 80 percent in the second round and, by the third round, 91 percent.
- At one FGP, exit interviews revealed that clients found the examination room unattractive and lacking in privacy. In response, staff created separate examination rooms, and bought curtains, soap and towels. By the next round, exit interview scores increased 83 percent. In the third round, after further improvements, the score improved 119 percent over the first round.
- At another FGP, the facility review noted that there were no laboratory facilities. By the third round, the FGP had opened a lab, hired a lab technician and was doing glucose, haemoglobin and urine tests. Staff were still working on getting more reagents and having a nurse trained as a lab tech, but over time, that too was accomplished.

One of the most valuable aspects of the QIS is that it empowers FGP staff to take ownership of their facility and make improvements that *they* think are important, rather than waiting for higher-level authorities to come and identify problems and tell the staff what must be done. Another is that the client satisfaction surveys let the FGPs look at quality of care from the client's perspective, which was something very new. In some cases, FGP staff has responded to clients' expressed needs by asking the community for help. For example, some asked the community to help upgrade the facility, and in response, people donated materials or labor, bringing a greater sense of ownership and involvement on the part of the community. The QIS has also demonstrated that the quality of clinical care can be improved in ways that are non-threatening and low-cost.

The QIS started in just three FGPs in 2001, but quickly expanded in scope and geographic coverage. Once reproductive health services had reached a satisfactory level, the curators and FGPs expanded the system to other clinical topics, including hypertension, well-child care, and anemia. The QIS was quickly replicated in virtually all the FGPs in Issyk-Kul Oblast and then, by linking the system with FM training, geographic coverage reached all oblasts by 2004 and about a third of PHC facilities in the country. There are plans to extend to at least one pilot FGP in almost every district nationwide by the end of 2006.

The QIS was also adopted by FGPs in Zhezkazgan, Kazakhstan, as a tool to improve family planning

National Quality Improvement Policy in Kyrgyzstan

After many months of learning about quality improvement concepts, followed by long deliberations, the Kyrgyz MOH adopted a landmark National Quality Improvement Policy. The policy brings together a broad range of quality improvement activities being implemented in the Kyrgyz health system into a conceptual framework for integrated quality improvement. The goal of the policy is to address strategic issues of health protection and health promotion as well as equitable access to quality care for the population.

The policy sets out six factors influencing quality of care and outlines strategies for each:

- Providers' competency;
- Providers' motivation to provide quality health and preventive health services;
- Providers' access to resources and information;
- The population's involvement in, and access to, health resources and information related to health protection and health promotion;
- Specific activities aimed at quality improvement in health care; and
- Regulatory mechanisms to improve the quality of health care.

The policy also sets out certain desired improvements to be achieved by 2008. These include increased quality and accessibility of health services and preventive health services; the integration of evidence-based clinical protocols and more rational drug use into medical practice; improved training of health providers at undergraduate and post-graduate levels, introducing quality methodology, EBM and clinical-economic analysis; developing and introducing mechanisms to motivate and increase the professional responsibility of health providers; increased awareness by patients of their rights and responsibilities concerning their health; development of licensing, accreditation and certification systems at all levels of the health care system. It envisions increased independence and responsibility of health facilities on issues of quality improvement and an increased role for non-profit professional and public organizations and associations and for local communities in health care quality improvement systems.

services, with some modifications. After pilot testing, it was expanded to all FGPs in the city, but it evolved in a different direction from the Kyrgyzstan QIS. There, once providers reached satisfactory levels of performance, they decided to involve city authorities to address problems with the health system that were beyond the control of individual FGPs, but constrained their ability to provide quality services. Among the key accomplishments of the Zhezkazgan QIS were:

- Implementation of a new policy allowing FGPs to provide family planning services—previously available only from gynecologists—thus making services more accessible to the population.
- The establishment of Reproductive Health Rooms in FGPs to provide family planning information and counseling.
- The reduction in waiting times and long lines for clients by setting up a system of appointments. FGPs put the registration desk in charge of appointments and examination room staff in charge of regulating patient flow.
- Improved client satisfaction resulting from a variety of interventions. Average scores on exit surveys of clients improved from a range of 3.7–4.5 (out of a possible 5) to 4.2–4.8 over 18 months. The most significant improvements were increased politeness of FGP staff, better responsiveness to clients' questions and improved cleanliness in the facilities.
- Increased awareness of contraceptive methods by clients, after a public education campaign was implemented: from a mean score of 3.4 (out of a possible 5) to 4.6 based on client surveys.

Quality Improvement Pilots (QIPs) in Uzbekistan

Experience with the evolution of the QIS from a facility-level improvement system to a systems level approach, combined with lessons learned through implementation of IMCI and other short courses, led to a more sophisticated Quality Improvement methodology being pioneered in Ferghana Oblast, Uzbekistan. The three Quality Improvement Pilots (QIPs) started in 2003, with the aim of improving clinical care for IMCI services, care for anemia in women of reproductive age and hypertension. Each QIP began in just one facility, but all of them went on to expand quite dramatically over time.

The Ferghana QIPs were intended to bring lessons learned from facility-level improvements to the attention of Republican and Oblast level policymakers, so that barriers to quality care at the systems level could be addressed. With this in mind, multi-level Quality Improvement teams were brought together to work on the QIPs, including top Republican experts, senior oblast experts and service providers from PHC, polyclinics and hospitals. At the core of the Ferghana QIPs were three concepts: standards, measurement and improvement:

- Standards were based on EBM in order to ensure good results. Ideally, they should have been based on Clinical Practice Guidelines but in the absence of good evidence-based CPGs (except for IMCI) the project relied on common-sense standards along the continuum of care. If followed, these standards would lead to improved health outcomes. For example: for hypertension, the *first* standard was to check the blood pressure of all patients at each contact with the PHC facility and record it in the patient record; the *second* standard was to confirm a diagnosis of hypertension if the physician measures the patient's blood pressure at 140/90 or higher at two visits over four weeks (with two measurements each time) and record it in the patient's medical record; the *third* was to complete the assessment of health status by prescribing four exams for all patients newly diagnosed with hypertension to assess damage to target organs (EKG, proteinuria, blood glucose and eye exam)—with additional standards on treatment, referral and counseling on management of hypertension.
- Measurement was designed to be as simple as possible, so the providers themselves could measure compliance with these standards on a monthly basis and track progress using run charts. For example, in the hypertension pilot, facility-level measurement quickly revealed that only 59 percent of patients were screened. It also showed outdated treatment practices (injections rather than tablets) and that patients were not always getting the right follow-up tests.
- Once initial measurements are made, the improvement process starts. In the case of the low screening levels for high blood pressure mentioned above, providers themselves analyzed the causes

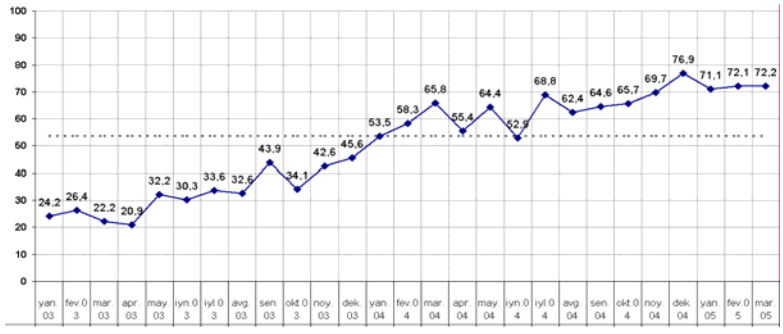
of the problem and developed an improvement plan. They assigned a reception nurse to routinely measure BP. This was tested successfully, with compliance quickly rising to 90 percent and staying high over time. Using the same approach, there were significant improvements against other standards, too.

A computerized monitoring system was used which, based on self-assessment at the facility level and measurement of improvements over time, tracked processes of care (compliance with standards) and health outcomes (cure rates, rates of complications). In contrast to the punitive approach traditionally used in Uzbekistan, data from the QIPs were used to understand the causes of poor performance and to identify steps to make improvements. Local quality improvement teams received support in the form of training and technical assistance to make the systems changes, based on data. The effort was characterized by teamwork at all levels, data for decision-making, a patient-orientation, a focus on processes and systems—rather than blaming individuals—and on leadership and communication.

As successful approaches were identified at one facility in the early stages of the Ferghana QIPs, the pilot was expanded to all three facilities, so that all of them were implementing the best practices on all three topics (IMCI, anemia, and hypertension) and measuring compliance with standards on all the topics. As improvements were shown to be sustainable, further replication began. The replication focused on rolling out both the best practices (i.e. the changes that led to improvements) as well as the QI process, so that new teams would know how to adapt the model/changes to their settings. The replication effort was organized to expand one district at a time, taking advantage of the weekly meetings attended by all PHC facilities in the district. The leaders from the initial pilot sites played a key role in the replication, as role models and technical advisors, with oblast chief specialists (e.g. the Oblast Head Therapist (Internist)) managing the replication, along with rayon coordinators. In this way, nine months after starting, in October 2003**,** the QIPs expanded to all PHC facilities in the three pilot rayons (53 PHC facilities). After a replication seminar, the decision was made to spread the experience of the QIPs throughout Ferghana Oblast and it is anticipated that, by the middle of 2006, all PHC facilities in the oblast will be implementing the best practices from all three QIPs. By the end of ZdravPlus, three more districts had started implementing QI projects, using the lessons learned from the pilot QIPs. At the same time, the QIPs began to move beyond PHC to improve care on hypertension, anemia and child health at the hospital level.

The results from district-level implementation of the hypertension project by 53 facilities from three pilot districts facilities showed significant improvements. For example:

- The first standard in the hypertension pilot pertained to *blood pressure (BP) screening*. Over the first eight months of this QIP, an average of only 26 percent of patients over the age of 18 had their BP measured. The quality team decided that a reception nurse should be responsible for measuring BP, recording the results and informing the doctor in cases when a patient's BP was over 140/90. After this intervention was implemented, the percentage of patients screened for hypertension rose to an average of 49 in the next 13 months. Currently, it is about 65 percent on average in the three pilot districts—a good improvement over the baseline.

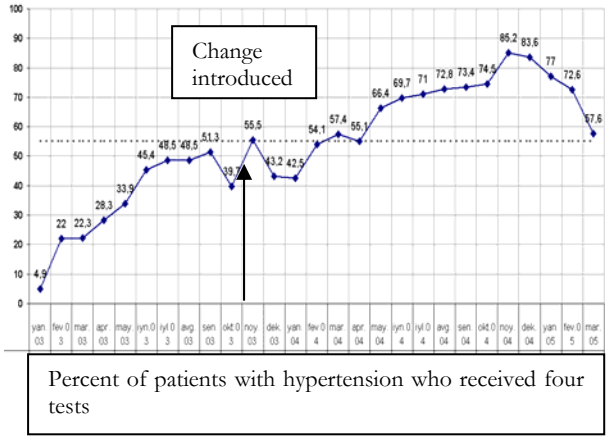


Percent of patients over age 18 screened for hypertension

- The next standard concerned correct *diagnosis* of hypertension. This went from an average of 29 percent in a 10-month period to an average of 72 percent in the following 11 months. The key to improvement was to assign nurses to record patients' BP in red ink in the tonometry journals and in outpatient health records in cases when the level was over 140/90 at the first measurement.

- The standard on *correct treatment* of hypertension requires prescribing the appropriate oral medications—and not an injection, as had been done in the past. The indicator for correct treatment went from an average of 60 percent over a 12-month period to about 80 percent in the following 10 months. Self-monitoring and involvement by clinical leaders at the oblast level triggered this improvement.

- The chart shows the percentage of patients diagnosed with hypertension in Toshloq Rayon who, according to standard, should *receive four tests* to identify the severity and possible complications: ECG, proteinuria, blood glucose and an eye exam. SVPs explained that they could perform all these tests except for blood glucose, which could only be done in central district hospitals. This presented a problem for patients who often didn't have the time and money for this test. So SVPs in Toshloq introduced a change by taking a blood sample at the SVP and having their staff take it to hospital for blood glucose analysis, thus saving patients' time and money.



Percent of patients with hypertension who received four tests

- The last standard in the hypertension pilot was that patients diagnosed with hypertension should *reach the desired blood pressure level* (under 140/90 for most patients) within three months after starting treatment. The average number of patients who achieved this reduction went from 50 percent over a 12 month period to 68 percent in the 10 months that followed. With doctors generally prescribing the right treatment for patients, it was clear that the relatively low levels of effective treatment were due to issues beyond the control of the health facility. Focus groups with patients showed that the problem lay partly with poor availability of the appropriate drugs and their high price. Other factors were patients' continued preference for injections over oral medications and—even when they did buy the drugs—poor compliance. The main issue, however, is the affordability of the drugs. This is an example of a systems issue that cannot be addressed at facility level, but requires action by the MOH**.**

Quality Improvement Projects on two other clinical topics, anemia and IMCI, also achieved positive results. A few examples from implementation at the district level:

- In the anemia QIP, as has already been noted, the percentage of women diagnosed with anemia in the three pilot districts fell by about half, after facilities began calibrating their Sali hemoglobinometers correctly or buying new equipment. Because more reliable results means less diagnosis of anemia and less severe anemia, patients no longer had to spend money on unnecessary treatment or be inappropriately referred for treatment of "severe anemia," thus making care more client-friendly and improving the efficiency of the health system. Screening of reproductive age women for anemia also rose from an average of 48 percent for all three pilot districts in late 2003 to78 percent a year later. The percentage of patients with anemia who were prescribed the correct dosage of iron sulfate tablets daily, for three months, according to standards, went from an average of 67 in early 2003 to about 85 percent in 2004. The improvement on both indicators is explained by training, self-monitoring and distribution of newly-developed clinical guidelines on anemia. Levels of *effective* treatment improved quite significantly—although not as much as had been hoped for--after the multi-level team took steps to make available free iron supplements in curative dosages. The percentage of women whose hemoglobin level returned to normal within three months after starting treatment rose from an average of 20 percent (January-August, 2003) to plateau at around 47 percent in 2004. The reasons why it didn't go higher still need to be investigated, but could be

due to high prevalence of helminthes, poor nutrition, high levels of IUD use or patients' non-completion of treatment.

- In the IMCI pilot, facilities measured whether the doctor assessed all young children for the four basic danger signs: whether a child is able to drink/breastfeed, vomits everything, has convulsions and/or is lethargic or unconscious. The average compliance rose from 73 percent against the checklist in 2003 to 94 percent in 2004 after introduction of self-assessment in the clinics in Yozyovon Rayon. Compliance with the standard that the doctor should prescribe antibiotics in cases of pneumonia increased from 63 percent in the first half of 2003 to about 94 percent in the second half of 2003 and throughout 2004. Similarly high indicators were observed for all 11 IMCI indicators in Yozyovon. This success was due to a combination of factors and interventions: first, health professionals received performance-based training on IMCI; second, IMCI forms were made available as a constant reminder to providers of the service delivery standards for young children; and third, the self-assessment monitoring system provided quality teams with information about their performance.

In Karaganda, Kazakhstan, a modified version of the QIPs, focused on child health, was implemented in Maikaduk, just out side Karaganda City and was successful in improving PHC doctors' compliance with IMCI protocols from 67 percent to 81 percent against a compliance checklist. This was achieved largely by addressing the problem of the lack of availability of IMCI forms. A rubber stamp was introduced, allowing doctors to stamp the IMCI form into child health records. Inspired by being able to make changes themselves, some of the Maikaduk doctors then decided to use funds from the facility's budget to print a stock of IMCI forms on inexpensive paper. The new form allows them to follow IMCI procedures using one side of the form and, on the reverse side, to add information according to standard government record-keeping requirements and to include a diagnosis according to ICD-10. The Karaganda QIP also began to address issues at the hospital level.

Under the system inherited from the Soviet Union, providers were considered responsible for all problems. The QIPs have helped senior officials recognize that there are many obstacles beyond providers' performance that need to be addressed in order to improve quality of clinical care. There are obstacles in the system, such as pharmacies being stocked out of drugs and policies to provide free treatment in hospitals, that encourage the population to seek hospitalization when it is not needed—and many other examples. There are also obstacles rooted in the behavior of the public, such as patients' reluctance to take medication because of side effects or poor compliance with regimens for a variety of reasons. Many problems cannot be addressed by providers themselves, but call for action at higher levels of the system.

Summery Service Delivery Strategy 6: Link PHC and Hospitals to Build a More Rational System of Care

Most of ZdravPlus' work in Central Asia has focused on the primary care level, and on shifting resources and many functions from the hospital level to the primary care level. However, it became clear through our work in several areas that it was also important to engage the hospital sector in order to ensure understanding of the changes happening on the PHC level, ensure that referrals be handled correctly, and most importantly, to improve the quality of care provided. ZdravPlus did this in two areas in which continuity of care from the PHC to the hospital level is particularly important: IMCI and prenatal, delivery and post-natal care for women.

IMCI

Begun under ZdravReform, ZdravPlus worked to introduce WHO's Integrated Management of Childhood Illnesses (IMCI) strategy at the PHC level. In the course of this process, it became clear that similar training needed to be conducted at the hospital level, for the reasons mentioned above. Together with local and international partners, including the MOH, WHO, and the USAID-funded Healthy Family Project, ZdravPlus developed an IMCI training course for hospitals, which was introduced in Uzbekistan in November 2004.

With a focus on emergency care for children with airway and respiratory distress, circulatory collapse, loss of consciousness and coma, and severe dehydration, the course uses a combination of case studies and hands-on clinical practice in the hospital to educate hospital doctors on WHO-recommended, evidence-based approaches for such situations. During one practice session at the hospital, trainees saw a child in respiratory distress make a considerable recover in just minutes with only oxygen—convincing them that the simpler WHO-recommended approaches did work, and that some of the drugs they had been using for such cases were not needed.

Doctors left the course with both improved knowledge and the required combination of skills for treating children with IMCI-related conditions from admission to discharge—meaning that children brought to these facilities have access to evidence-based, WHO-recommended care.

Safe Motherhood

Beginning work in the area of maternal health was somewhat controversial in Kazakhstan, where the ob/gyn community was both conservative and influential. ZdravPlus recognized that in order to improve care in this area, an integrated approach would be needed, involving both the inpatient and outpatient levels of care.

The legacy of the Soviet system meant that almost all pregnancies were regarded as high-risk and approaches to prenatal care and delivery were highly medicalized. Before the Safe Motherhood pilot began in Zhezkazgan City in Kazakhstan in 2002, almost all prenatal care in the city was provided by two overworked ob/gyns at the maternity hospital and 85-90 percent of pregnancies were deemed "at-risk". The pilot set out to move routine prenatal care to the FGPs, which provided the bulk of the primary care in the city, near people's homes and workplaces, as well as providing training and information to both the maternity hospital and FGP staff, aimed primarily at demedicalizing care.

Initial results of the pilot showed significant decreases in prenatal hospitalizations for conditions for which hospitalization is not required, as well as significant decreases in medical interventions during delivery, including vaginal smears, episiotomies, and use of painkillers, and women were empowered to choose their labor position and to have a partner with them during delivery. During the first year of implementation, perinatal mortality rates dropped and there were no maternal deaths. While it is too soon to judge the statistical significance of this, this serves as an important confirmation for the participating medical community that the previously-prevailing more medicalized, more resource-intensive approach was not necessary to achieve good health outcomes. And, in fact, the shift has led to increases in patient satisfaction.

Through our activities on IMCI and Safe Motherhood, as well as some initial work at the hospital level on quality improvement pilots (QIPs) in Ferghana, Uzbekistan, ZdravPlus' work with inpatient facilities

STRATEGY 6: LINK PHC AND HOSPITALS TO BUILD A MORE RATIONAL SYSTEM OF CARE

While the ZdravPlus Project largely directed its focus towards improving primary health care in Central Asia there were specific instances in which it became important to connect PHC and hospital level care. In instances such as prenatal care and delivery, ongoing care is necessary as is a close collaboration between PHC and the maternity hospital. In other cases, new practices adopted at the primary level may not be understood by hospital level physicians, who traditionally have a higher status than PHC level doctors and occasionally prevent the PHC doctors from practicing their new skills. For these and many other reasons, ZdravPlus began working at the hospital level in a few very specific instances: Safe Motherhood and IMCI.

Safe Motherhood in Kazakhstan

Delivery and complications during prenatal and post-natal care should obviously be handled at the hospital level. But the majority of pregnancies are normal and most prenatal care for pregnant women can largely be handled on an out-patient basis at a PHC facility. However, in Kazakhstan 85-90 percent of all pregnancies were regarded as 'at risk' and pregnancy and delivery were highly medicalized - with too many medications, lab tests, screenings, referrals to specialists and even frequent hospitalizations during the prenatal period.

Together with WHO/Europe, ZdravPlus sought to introduce internationally accepted, evidence-based approaches on pregnancy and delivery to Kazakhstan through a pilot project in Zhezkazgan. The pilot project sought to move to less medicalized, more woman- and family-centered care and toward evidence-based approaches. The expectation was that this would not only result in better care, but also reduced costs.

Prior to project implementation, two overworked ob/gyns in the maternity hospital provided virtually all prenatal care in the city, bypassing family group practices. One of the major changes brought about by the pilot project was to shift most prenatal care to the FGPs, effectively integrating this service with other primary health care services provided at the community level. Before the pilot project, only 19 percent of women said they had obtained their prenatal care from FGPs, but afterwards that increased to 66 percent.

The pilot project also made significant contributions to de-medicalizing care. The average number of prenatal visits per woman fell dramatically from 12 to six, although the percentage of pregnancies considered "normal" increased only from 12 to 21 percent—still a very low proportion relative to WHO's guideline of around 85 percent, but an improvement nonetheless. There were also encouraging declines in the prescription of inappropriate, non-evidence-based drugs during the prenatal period. For example, use of magnesium sulphate decreased by more than two thirds. Traditionally, this was used to improve circulation or prevent preterm birth, but it is only indicated for eclampsia and pre-eclampsia under modern evidence-based protocols. Use of glucose, used for many conditions but without evidence-based indications, fell almost as steeply. Use of polyvidone, which had been used to purify the blood—but for which there are also no indications and which has dangerous side effects—was cut to almost 10 percent.

Significantly, there was a 19 percent decline in hospitalization of women during the prenatal period for 11 monitored conditions, for which hospitalization is not normally required—from 866/1,000 deliveries to 695. And the average length of stay for these conditions fell from eight to 6.7 days.

In terms of *hospital* care for delivery, there was also a trend towards de-medicalization. There were large drops in the numbers of laboratory tests performed at the hospital. For example, the number of vaginal smears fell from over 1,023 in the year prior to implementation to just 24. And unnecessary procedures such as the administration of analgesic drugs, shaving pubic hair and enemas before childbirth were discontinued. There were also fewer episiotomies and other

invasive procedures, such as "cervical examination" after childbirth. And consistent with this de-medicalization, the average length of stay at the hospital for deliveries declined from 4.1 to 3.7 days. Even though the Zhezkazgan Maternity Hospital had a caesarian rate in the normal range before the pilot project started, caesarian births fell still further, from 9.7 percent of deliveries to 8.4 percent.

At the same time, some simple, low-cost approaches known to improve outcomes were introduced. The partogram—a previously unknown "tool" in Kazakhstan—was used in about three out of four cases to manage labor and delivery, potentially contributing to fewer cases of fetal asphyxia.

The hospital moved from a sterile environment, where visitors were not allowed, to one which is simply "clean," discontinuing the disinfection of rooms, wards, furniture and bedclothes. This, coupled with individual rooms for women, made it easier for family members and friends to visit and allowed women to have a partner with them during delivery. Significant numbers of women chose this option—rising from 16 percent in 2002 to 79 percent a year later—and all the women found it helpful. Almost all the women also began to choose their own delivery positions. Prior to the pilot project 81 percent of women gave birth flat on their backs which makes delivery more difficult; that fell to less than half by the end of the pilot.

Patient satisfaction also increased and women were more likely to report being treated with respect by health workers after project implementation. Ninety-eight percent of women were completely satisfied or satisfied with prenatal care. And satisfaction was even higher with hospital care, with 98 percent of new mothers saying they were completely satisfied and two percent satisfied.

The pilot was able to show that less care was also better care. As already noted, caesarian births went down; there were fewer episiotomies; and many evidence-based practices were introduced that should, over time, contribute to improved outcomes. One year is too short a period to make conclusive statements about long term outcomes; and the number of births in Zhezkazgan is very small, but the results outlined are encouraging and suggest that the project has had a positive impact.

As expected, the pilot also demonstrated the potential for significant improvement in resource-efficiency at the Zhezkazgan Maternity Hospital, as well as in the overall health system. Demonstrating a reduction in both the number of hospital admissions and average length of stay for 11 monitored prenatal conditions spoke of the ability to positively influence the way certain clinical cases are treated, which in turn leads to an improvement in system efficiency and a reduction in unnecessary costs. The cost savings of this reduction in hospitalizations were estimated to be 13 percent of the overall costs of the 11 monitored conditions in the pre-implementation period. And while in the past, the hospital would have been penalized for a reduction in hospitalizations by receiving a smaller budget, the introduction of new hospital payment systems in Kazakhstan meant that this did not occur. Rather, the hospital received an 11 percent increase in budget funding for the monitored conditions, and facilities are able to implement these changes without loss to their overall budget. This then allows them to reinvest the savings in an area of hospital operations where they are most needed.

Financing systems in Kazakhstan are still in transition, but the results of the Safe Motherhood pilot indicate that the introduction of reforms in the content of clinical care, designed to improve the quality of care through international, evidence-based approaches, go hand-in-hand with the introduction of new hospital payment systems. Together, the advancement of health financing systems and the introduction of programs such as Safe Motherhood have a synergistic effect, promoting higher quality, more efficient and equitable care, while allowing for sustained reinvestment of cost savings to those areas of the health system that need them the most.

There have been significant changes with respect to Safe Motherhood in Kazakhstan since the Zhezkazgan pilot began. The Government of Kazakhstan has adopted a new Perinatal Care Improvement Program, incorporating the new approaches as a matter of national policy and citing Zhezkazgan as a model site. And, just last year, the two leading maternity care facilities in the country, the Mother and Child Health Center and the National Perinatal Center requested training in the new approaches. WHO responded, with help from ZdravPlus and UNFPA. These two "flagship" facilities are now integrating the new practices into their work and, once they have gained experience, they plan to train the staffs of other hospitals. So the indications are that international approaches to Safe Motherhood are taking root in Kazakhstan.

Hospital IMCI in Uzbekistan

In the case of the Safe Motherhood project, it was known that safer, friendlier, family centered care would come from integrating prenatal services in to the PHC sector. In the case of IMCI, ZdravPlus gradually became aware that not involving the hospital level in this important strategy for improving child health outcomes was limiting the impact PHC level physicians could have in using IMCI. In part, because hospital staff members are responsible for overseeing the work of PHC level workers and if they do not understand the approaches being taught to PHC staff, they will often prevent the doctors from applying them. Another reason is that the hospital doctors' management of clinical conditions follows antiquated practices, which can place patients at risk. In addition, since hospitals see large numbers of patients who could be managed at the PHC level—sometimes even at home—there is an urgent need to define which care needs to be provided at the hospital level and which should be provided at PHC facilities, which are closer to people's homes. And finally, in terms of sustainability, hospital doctors and specialists have higher status than PHC doctors and it is their understanding and support of new clinical practices which will ensure long term change and better health outcomes.

Thus, toward the end of the ZdravPlus project, we joined with MOH counterparts, WHO, the USAID-funded Healthy Family project and others to develop an IMCI course for hospital physicians. The WHO manual, "Management of the Child with a Serious Infection or Severe Malnutrition" was the foundation for the course, which was first implemented in central rayon hospitals in Ferghana Oblast, Uzbekistan.

The course focused on emergency care: managing airway and respiratory distress, circulatory collapse, loss of consciousness and coma, and severe dehydration. It used clinical cases, group work exercises, a DVD with multimedia clinical cases, and actual practice in the hospital. The doctors were presented with real-life case scenarios with Objective Structured Clinical Examination (OSCE) -style assessments, a widely used method of assessing health workers' clinical skills. The physicians were also given a pocket-sized job aid book, based on the WHO manual, which contains management charts and algorithms to be used as a daily reference manual. In addition to overall IMCI concepts, the course covered key elements of the steps in hospital management of a sick child and discussions of how to implement and monitor IMCI in the hospitals where the doctors work.

Implementing the training in a hospital setting went a long way to overcoming the doctors' initial skepticism about the medical practices recommended in the WHO modules and demonstrated the effectiveness of IMCI in practice. In an actual case presenting to one of the hospitals during the course, a child with respiratory distress was given oxygen alone—according to the hospital IMCI principles—and after several minutes the child improved considerably. This real-life scenario convinced the participants that some of the drugs they had been using were not needed, and that the simple WHO recommendations are very effective and do not harm their patients.

A number of Quality Improvement principles were embedded in the course in order to identify and overcome obstacles to proper implementation of hospital IMCI. This resulted in a number of changes being made in the practice of emergency pediatrics at every site where the course was

conducted. In one rayon the head doctor of the pediatric unit fitted an oxygen cylinder with a flow-speed regulator the day after the practical training on this topic. Participants also compared the cost of the antibiotic they were using (ceftrioxazone) with that recommended in the course (chloramphenicol) and found that the savings would be 65 percent. Based on this evidence, they decided to start procuring the less expensive drugs. In addition, children with diarrhea were treated without enemas, avoiding further dehydration, and patients with minor problems were counseled and sent home, reducing unnecessary hospitalizations.

Participants left the course with improved knowledge and, more important, improved skills, as demonstrated by OSCE results. The exams measured the doctors' practical emergency resuscitation skills—not only for individual skills, but for the combination of skills needed to treat complete simulated clinical cases from the point of admission to discharge, including identifying the diagnosis and treating the condition. Participants' closing OSCE scores averaged 85 percent, meeting the desired target. Since the hospital IMCI course was conducted toward the end of ZdravPlus, information was not available at the time of writing this report about the doctors' performance a few months after the training.

Other Hospital Work

The Quality Improvement Pilots in Ferghana, Uzbekistan, began to extend to the hospital level toward the end of the project. As part of the effort to improve care for women with anemia, the staff of Quva Central Rayon Hospital set up a Quality Improvement team and decided to improve the percentage of patients with anemia receiving iron tablets during their hospitalization. With only 50 percent of women with anemia receiving iron tablets at the baseline (April 2004), the team decided to have a laboratory technician place a red dot on the medical record of every woman with anemia, as a reminder for physicians to prescribe iron. Weekly monitoring was conducted and, by October 2004 the proportion of women with anemia treated with iron tablets increased from 50 percent to an average of 86 percent.

Service Delivery Strategy 7: Using Exchange of Experience to Improving Education and Information for Health Care Professionals

Led by subcontractor the American International Health Alliance (AIHA), both the CAR Regional Nursing Coordination Council and the CAR Council of Rectors sought to improve nursing and medical education and strengthen mechanisms for information exchange within these fields. By building on the experiences of other countries, as well as between the countries of Central Asia, the Councils were able to establish both links for exchange of information, and a healthy competition between the CAR countries (with the exclusion of Turkmenistan, which did not participate in the councils), such that improvements made in one country helped inspire improvements in the neighboring republics.

CAR Regional Nursing Coordination Council

The Nursing Coordination Council (NCC) was established in 1999 and early in the project support to the Council was incorporated under ZdravPlus. Via partner AIHA, and with regular support from AED, the NCC brought members from four of the Central Asian countries (with the exception of Turkmenistan) together for regional meetings and conferences on an annual basis. Additionally, an executive committee composed of two representatives from each member country met several times yearly. The Council was initially chaired by Dr. Chubakov from Kyrgyzstan, and by the end of the project had passed to a nurse from Uzbekistan. This is seen as quite an achievement, in a system where doctors traditionally have educated and overseen nursing.

The Council sought to address four major areas with the overall objective of improving nursing care in general and developing the role of family nursing in particular: nursing education, nursing leadership, nursing practice, and nursing legislation. The major accomplishment of the Council was collaborating with the ZdravPlus partner STLI nurse program in Kyrgyzstan to make significant progress in the compilation and dissemination of nursing literature in Central Asia. There is minimal Russian language nursing literature, a large constraint to upgrading the role of nurses and improving nursing practice. Other achievements of the Council are the development of a list of unified core competencies for family nurses across the region; development of clinical practice guidelines for nursing care on tuberculosis, malaria, diabetes, hypertension, breast health, and hepatitis; development of and support to national nursing associations in Uzbekistan, Tajikistan, and Kyrgyzstan; and, development of several clinical training courses and nursing leadership and management. The Council will continue to serve the valuable role of information exchange.

Regional Council of Rectors

The Regional Council of Rectors (CORs) was formed early in the ZdravPlus Project following a regional conference on medical education. It was supported by ZdravPlus partner AIHA. The CORs brought together leaders from medical education institutions throughout Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan. Its main strength was serving as a collegial, peer-oriented body where medical academy rectors, supported by international faculty, could convene to discuss policies and improvements in medical education. It developed and approved standard qualifications for graduation, enabling individual country level institutions to work to realign their programs to meet these standards. A blueprint or platform for medical education reform in Central Asia was initiated.

Through a variety of conferences and training seminars, including Objective Structured Clinical Examination (OSCE), bioethics, and grantsmanship, often conducted with support from AED, the COR was exposed to international practices, approved new methodologies, and exchanged and disseminated information. One major success is that most of the medical academies in Central

Asia have initiated various levels of use of OSCEs, a major step away from the traditional theoretical rather than practical tests of the past. The CORs also discussed policies and practice and improved information exchange through five subcommittees: 1) institutional standards; 2) student qualifications; 3) faculty and resource development; 4) government relations; and 5) public relations/information dissemination. In addition, the CORs also served as a information dissemination mechanisms for programs and improvements developed in specific countries or institutions, for example, experiences in the development of the family medicine residency in Kyrgyzstan were disseminated through the CORs. It is expected that the structure and role of the CORs will evolve in the future as more intense country level medical education reform is initiated.

Service Delivery Results

The ZdravPlus Intermediate Result for Service Delivery under the USAID Performance Monitoring Plan is: Improved quality of health care including MCH and infectious diseases.

Kazakhstan

The percent of the population covered by PHC facilities meeting a minimum standard of service provision decreased in Kazakhstan from 36 percent in 2001 to 21 percent in 2003. Minimum standards of service provision were defined by a numeric scoring system that resulted in facility ratings in each of the following categories: population choice, financing, equipment, renovation, laboratory, existence and use of clinical information system, existence and use of financial information system, CQI system, drugs available, and training scores. This indicator is sensitive to changes in its denominator – the total number of facilities. As the total number of facilities in ZdravPlus pilot sites increased from 80 to 373 from 2001 to 2002, the percentage of facilities meeting minimum standards decreased. Despite this fact, PHC facilities in Zhezkazgan and Satpaev continued to increase their capacity to provide high quality PHC services as measured by the minimum standards with Zhezkazgan increasing from 52 percent in 2001 to 62 percent in 2003 and Satpaev increasing from 46 percent to 57 percent. This was largely due to increased quality improvement programs and training. They have the highest minimum standards numbers of any site in Central Asia.

ZdravPlus service delivery activities in Kazakhstan resulted in an increase in the number of PHC facilities participating in quality improvement programs from two in 2001 to 17 in 2004, with sites located in Zhezkazgan, Satpaev, and Karaganda cities. Two government approved clinical protocols on IMCI and hypertension have been developed with support from ZdravPlus. Due to the introduction of updated clinical protocols and training, and complemented by other ZdravPlus interventions, clinical practices related to ARI have improved significantly, with the percentage of ARI cases in children under five with an antibiotic prescribed decreasing from 42 percent in 2002 to 26 percent in 2003. However, the percentage of hypertensive cases with bendazole (Dibasol) or another injectable prescribed unfortunately increased slightly from 14 percent to 17 percent over the same year. More than 35,000 person-days of training in topics such as family medicine, IMCI, reproductive health, health promotion, rational pharmaceutical management, and evidence-based medicine have been provided over the life of the Project.

Kyrgyzstan

ZdravPlus service delivery activities in Kyrgyzstan resulted in increases in the percent of the population covered by PHC facilities meeting a minimum standard of service provision and an increase in the number of PHC facilities participating in quality improvement programs. Minimum standards of service provision were defined by a numeric scoring system that resulted in facility ratings in each of the following categories: population choice, financing, equipment, renovation, laboratory, existence and use of clinical information system, existence and use of

financial information system, CQI system, drugs available, and training scores. As of 2003, 28 percent of the population was covered by PHCPs meeting minimum standards compared to 24 percent in 2001. This marginal increase is the result of a rapid increase in the number of facilities covered by reforms as a result of national roll-out. The number of PHC facilities in Issyk-Kul Oblast meeting minimum standards increased from 43 percent to 50 percent from 2001 to 2003. Facilities participating in quality improvement programs increased dramatically from the three pilot facilities in Issyk-Kul Oblast in 2001 to more than 100 facilities in 2004, covering all PHCPs in Issyk-Kul Oblast and at least four pilot PHC facilities in each of the other oblasts. In addition, the number of facilities covered by government-approved, evidence-based clinical protocols has rapidly increased from 29 in 2001 to 87 in 2004. Clinical protocols have been incorporated into contract agreements for all facilities contracting with the Mandatory Health Insurance Fund. Along with the introduction of updated clinical protocols and complemented by other ZdravPlus interventions, clinical practices in Issyk-Kul Oblast have improved significantly, with the percentage of ARI cases in children under five with an antibiotic prescribed decreasing from 35 percent in 2002 to 13 percent in 2003, and the percentage of hypertensive cases with bendazole (Dibasol) or another injectable prescribed decreasing from 2 percent to 1 percent over the same year. More than 340,000 person-days of training in topics such as family medicine, family nursing, IMCI, and reproductive health have been provided in Kyrgyzstan over the life of the Project.

Tajikistan

As health reform and PHC development continue to be in early stages in Tajikistan, ZdravPlus service delivery activities in Tajikistan are monitored using a process indicator of the number of person-days of training provided by the Project. Since 2001, ZdravPlus has provided more than 16,500 person-days of training on topics such as family medicine, family nursing, rational prescribing, IMCI, inter-personal communication skills, and evidence-based medicine. The level of training provided did not reach original targets for this indicator given the shift in ZdravPlus resources to focus on developing a curriculum for a TOT course in family medicine.

Turkmenistan

Clinical training has continued to be the cornerstone of ZdravPlus activities in Turkmenistan, focusing mainly on topics in maternal and child health (including IMCI) and basic laboratory skills. The number of person-days of training provided and supported by the Project since 2001 is 7,312.

Uzbekistan

ZdravPlus service delivery activities in Uzbekistan resulted in increases in the percent of the population covered by PHC facilities meeting a minimum standard of service provision and an increase in the number of PHC facilities participating in quality improvement programs. Minimum standards of service provision were defined by a numeric scoring system that resulted in facility ratings in each of the following categories: population choice, financing, equipment, renovation, laboratory, existence and use of clinical information system, existence and use of financial information system, CQI system, drugs available, and training scores. As of 2003, 24 percent of the population was covered by PHCPs meeting minimum standards, increasing from 19 percent in 2001. This marginal increase is due to rapid expansion in the number of PHCPs covered under the reforms (the denominator) as rural PHC reforms were rolled out within Ferghana Oblast and to two additional oblasts. Facilities participating in quality improvement programs increased dramatically from the three pilot facilities in 2001 to 63 facilities throughout Ferghana Oblast in 2004, as quality improvement systems were refined and replicated. Two government approved clinical protocols on iron-deficiency anemia and hypertension have been developed with support from ZdravPlus. Along with the introduction of updated clinical protocols

and provision of training, and complemented by other ZdravPlus interventions, clinical practices in Ferghana Oblast have improved, with the percentage of ARI cases in children under five with an antibiotic prescribed decreasing from 65 percent in 2002 to 58 percent in 2003, and the percentage of hypertensive cases with bendazole (Dibasol) or another injectable prescribed decreasing from 69 percent to 47 percent over the same year. More than 27,000 person-days of training in topics such as family medicine, nursing, IMCI, reproductive health, and rational prescribing have been provided in Uzbekistan over the life of the Project.

POPULATION AND COMMUNITY HEALTH

The situation on population involvement at the start of ZdravPlus was quite different from that facing other components of the project, where a complex web of long-standing regulations governs the way services are structured, delivered and financed. In contrast, under the Soviet system, population and community health education was an underdeveloped component of the health care system. The population had very little involvement in their own health care or in shaping the way services were provided, and doctors were not expected to educate their patients, involve them in decision-making about their own health care, or even, necessarily, provide them with information about their condition. Full responsibility for the health of the community was felt to lie with doctors, who could be penalized if the reported health status of their communities did not meet expectations. The role of doctors was to prescribe treatment or refer during patient visits, and to gather the appropriate statistics and reports. As a result, very little time was invested in patient counseling or community education, and health care workers were not trained to carry out these tasks. In short:

- Patients had very little knowledge on health topics and very little feeling of responsibility for their own health;
- Doctors and nurses were unfamiliar with basic health education techniques or the importance of educating the population; and
- The institutions responsible for health promotion in the MOHs had little understanding of what that entails and were unfamiliar with techniques of public education and behavior change.

To address these issues, the population and community health component of the program worked to meet the USAID Strategic Objective that select populations are better informed about personal health care rights and responsibilities.

Under ZdravReform, strengthening population and community health involved informing selected population groups about key behaviors to promote their own and their family's health. These campaigns were intended to support family medicine training and short courses being provided for PHC providers, and had the underlying goal of fostering demand for health information amongst the population. As PHC facilities were established, the notion of individual rights and responsibilities with respect to health was promoted by allowing the public to enroll with the PHC provider of their choice. "Open enrollment" campaigns in several pilot sites, combined with a per capita payment system for PHC providers, began to shift the orientation of health workers from serving the government to being more responsive and accountable to the population.

ZdravPlus continued with these activities, categorizing its population involvement component into:

- *health promotion*, which is aimed at helping the population take more responsibility for its own health and the health of their community, through both campaigns and ongoing activities which relied on interpersonal communications; and
- *policy marketing*, which educates the public on the reforms going on in the health sector and tries to elicit feedback on those reforms so as to create a system that is more responsive to the population's needs.

Health Promotion

With respect to health promotion, ZdravPlus adopted a two-pronged strategy to address the challenge of improving public understanding and changing behavior on a broad range of PHC topics, consistent with the overall goals of the project.

First, project staff conducted short, but highly visible, multi-media campaigns on health topics related to the project's priority clinical training topics—mostly Maternal and Child Health issues, but also hypertension and infectious diseases. In an environment where very little public education had been conducted and doctors traditionally made most decisions for patients, these campaigns were designed to rapidly improve public knowledge and affect key behaviors on crucial health topics. Campaigns also allowed for consistent, evidence-based health messages to be conveyed to the public, in an environment where health care workers may not have had reliable health information to share with their patients, nor the skills to effectively convey information. Throughout the course of the ZdravPlus Project, these campaigns progressively transitioned from being implemented by ZdravPlus itself, to being implemented by local partners, including NGOs, associations, or government agencies, with the objective of fostering local capacity for and understanding of health promotion work.

It was also recognized that ongoing improvements in interpersonal communications between health workers and their patients needed to go hand-in-hand with the health promotion campaigns in order to have a larger impact on behavior. So while the campaigns provided an intense focus on one topic for a short period, activities which relied on interpersonal communications on a broad range of primary health care topics took place year round. ZdravPlus worked at the community level to train and build capacity in networks of potential health educators—from PHC workers to schools and community leaders. Brochures, posters, videos and other educational materials developed within the framework of campaigns were used as supporting materials for the interpersonal communications activities.

All of the project's health promotion activities centered on pilot sites, rather than being national in scope. While Kazakhstan and Uzbekistan were able to develop their own campaigns and campaign materials specific to their countries, Kyrgyzstan had a very modest budget for health promotion, so that it was limited to working in one or two rural districts and adapted or used materials from other countries, which could have affected the results of its work. Tajikistan and Turkmenistan also worked under limited budgets, creating their own materials wherever possible, but often working with other international donors (TJ) or using materials from other countries (TM) in order to do the most with limited resources.

Marketing the Reforms

In terms of marketing the reforms, ZdravPlus expanded its work beyond the population enrollment campaigns already conducted under ZdravReform to market specific health rights granted to the population under the reforms, for example, the new outpatient drug benefit in Kyrgyzstan. In Uzbekistan, the broad concept of the reforms was also marketed to policy makers and health workers, to help them understand the rationale and benefits of the reforms and build support for implementation and further change. There was important progress on institutionalizing the policy marketing function, with ZdravPlus and the MOHs in Kyrgyzstan (2002) and Tajikistan (2004) working together to establish Press Centers with a mandate to promote the reforms.

Summary of Population Strategy 1: Educate the Population on PHC Topics through Health Promotion Campaigns

Health promotion campaigns were a cornerstone of the population involvement component of the project under ZdravReform and the early days of ZdravPlus. The campaigns aimed to provide clear, key information on important health topics directly to the population through various means, including mass media and interpersonal communications. In an environment where the public had little reliable information on health topics, this mass information strategy was extremely important, and served to complement the trainings being provided to clinicians.

Based on formative research, such as public surveys, focus groups, or analysis of existing data, ZdravPlus teams identified the target audience, objectives, and key messages. Then, in cooperation with local and international partners, materials were developed and reviewed, tested with the target audience, and then the campaign launched. Often, volunteers or health care workers were taught how to use the materials and played a role in disseminating them to the population.

The main topics of campaigns followed closely with the main health topics addressed by ZdravPlus through clinical trainings, and included child health (diarrhea; acute respiratory infections; antibiotic use; breastfeeding); family planning; safer motherhood; anemia and nutrition; tuberculosis; STIs; and hypertension.

The campaigns represented concentrated periods of information provision, with key messages on these topics repeated through a variety of sources: TV soap operas; public service announcements on TV and radio; press conferences and other work with the mass media; posters hung in health care facilities and other public places; performances by volunteers; contests for nurses and journalists; and distribution of brochures and flyers by health care workers. As time went on and more information was available to the public overall, an increasing emphasis was placed on interpersonal communications, which have been shown to be more effective in changing behavior than work through the mass media, which is effective in getting information out and raising awareness of issues.

Consider the example of the child health campaigns. Conducted in all five countries, each campaign focused on either diarrhea or acute respiratory infections, and was conducted during the season in which these conditions are most prevalent. Throughout the course of the project, materials on breastfeeding and antibiotic use were developed for each country, and these topics began to be addressed in conjunction with and support of the other topics. Materials in each country built off of a standard set of key messages, but were developed specifically for each country, based on the knowledge and opinions prevalent in the country, and the cultural norms and styles that would appeal to the population. In Turkmenistan, for example, video spots on diarrhea and breastfeeding aired on national television and radio plays were also broadcast countrywide. Peace Corps volunteers and health care workers distributed brochures in both Russian and Turkmen in pilot sites, where doctors received clinical training on IMCI. A nurses' contest attracted about 125 participants, who produced their own posters and educated mothers on the topics.

Population Strategy 1: Educate the Population on PHC Topics through Health Promotion Campaigns

The population and community health component of ZdravPlus aimed to support the aims of the service delivery component, both in terms of timing and in terms of key messages, so as to achieve the largest possible impact on the knowledge and practices of health care workers and the public. Thus, in complement to clinical trainings, core topics were child health and family planning but campaigns were also conducted on anemia and nutrition, hypertension, STIs and TB, though not all topics were covered in each country. The campaigns served not only to get knowledge across, and to influence people's behavior on a specific health topic, but also to help build bridges between providers and the population and establish health care workers as providers of health information. They also encouraged the population to take responsibility for their own health and that of their families, thus helping shift the balance of responsibility for health from the health care system to the individual and the community.

The campaigns used printed materials such as brochures and posters, mass media, and interpersonal communications to convey the key messages to the target audience, with many campaigns run two or three times over the life of the project to reinforce messages, with slight adjustments made to the key messages and techniques on an as-needed basis, to best target the desired knowledge and behaviors.

Several campaigns in different areas are detailed below, to provide a sense of methods employed in ZdravPlus health promotion activities.

In Kazakhstan and Uzbekistan, campaigns were based on audience research to ensure that the campaign objectives and key messages would have the maximum impact. In general, the following process was followed:

- *Conduct background research;*
- *Identify target audiences and develop the campaign goal, objectives and key messages, based on this research;*
- *Organize an advisory committee composed of key stakeholders to review the goal, objectives and key messages;*
- *Draft campaign materials such as radio and TV products, newspaper articles, advertisements, brochures and posters;*
- Review of the materials by the advisory committee (and, in Uzbekistan, the MOH);
- Pre-test of the materials with the target audience;
- Produce the materials;
- Orient/train health workers and health educators for interpersonal communications; and
- Launch the campaign.

When resources allowed for development of country-specific materials in Kyrgyzstan, Tajikistan, and Turkmenistan, these steps were also followed.

Examples of Health Promotion Campaigns on MCH Topics

There were numerous health promotion campaigns on child health and family planning over the life of the project. Campaigns aimed to educate the population to take good care of their health and that of their families at home, and to know when to seek professional medical attention. Each campaign was designed to complement clinical training being done with health care professionals.

Keeping Children Healthy Campaign in Turkmenistan

The first "Keeping Children Healthy" campaign in ZdravPlus pilot districts in Turkmenistan focused on diarrhea and provides a good example of a health promotion campaign. The goal of the campaign was to increase the knowledge of target populations about the danger signs of diarrhea, home care for a child with diarrhea, and the importance of breastfeeding. The population was amazed by the variety of media used: radio, television and newspaper articles, in addition to the more traditional posters, brochures, and flyers. Two video spots on diarrhea and breastfeeding were broadcast repeatedly on all three national television channels, and two radio plays were

broadcast on national radio. The informational materials were produced in both Turkmen and Russian and were distributed by health care providers and Peace Corps volunteers in the pilot etraps.

Posters Made by Nurses in Farab Etrap, Turkmenistan

In addition to the use of informational materials and media outlets, ZdravPlus sponsored a contest among nurses in cooperation with local health authorities. About 125 participants were involved, including the nurses themselves and physicians, feldshers (comparable to physicians assistants), and other House of Health (local health clinic) staff. Nurses talked to mothers when making home visits, distributed ZdravPlus materials and prepared their own posters on keeping children healthy. For the contest, their performance was judged on the basis of the quality of their posters, how many materials they distributed, and random tests of the knowledge of mothers in their catchment areas. The campaign concluded with an awards ceremony in each etrap, which proved to be emotional events, as the contest was very popular among nurses, Houses of Health, and the mothers in the target population.

By the end of the campaign, the population's knowledge on home care for diarrhea had significantly improved. According to the 2000 Demographic Health Survey (DHS) survey, which served as a baseline, 62 percent of the population nationwide incorrectly believed that a child with diarrhea should receive much less food than normal—a common misperception in Central Asia at the start of ZdravPlus. After the campaign, however, 83 percent of the population in Farab etrap stated that a child with diarrhea should either receive more food than normal or be fed normally.

Keeping Children Healthy in Kazakhstan and Elsewhere

Similar campaigns on "Keeping Children Healthy" topics were carried out in all of the countries, with extensive campaigns in Kazakhstan, where local branches of the family doctors' association took on the responsibility of undertaking the campaigns, with technical support from ZdravPlus. Kyrgyzstan, Tajikistan, and Uzbekistan also had campaigns on ARIs and diarrhea, to support the clinical work being done to train providers on IMCI. In 2003, a jointly-funded Global Development Alliance project brought together resources from ExxonMobil and USAID to carry out child health activities in Kazakhstan's capital city, Astana. The project, implemented by ZdravPlus and local partner the Kazakhstan Association of Family Physicians (KAFP) included both clinical training in IMCI for PHC doctors and an extensive population involvement component. Under the population component, volunteer theater troupes, composed of both parents and doctors were created by eight participating PHC facilities. These volunteer groups performed skits on ARIs, diarrhea, breastfeeding, and antibiotic use for parents at 17 preschools throughout the city, and the City Health Department reporting that over 10,000 caretakers of children under age five were reached by the volunteers. Additionally, a contest for journalists helped gain press coverage for the IMCI topics.

Family Planning Campaign in Uzbekistan

In an environment where contraceptive method choice has traditionally been limited and abortion has been prevalent, ZdravPlus sought to make the population aware of the range of contraceptive methods available, to dispel common myths about the different methods and to empower the population to make choices about family planning. In the words of a PHC doctor in Ferghana, "Before the campaign, women didn't know about contraceptive methods—they only used IUDs." The campaign aimed to change that.

For six weeks, PHC clinics, health promotion centers, NGOs and others conducted a range of interpersonal communications activities around the oblast and distributed posters and brochures developed for the campaign. A soap opera, entitled "Family Happiness," TV spots, and radio spots were also developed and widely aired. In addition, newspaper articles and print advertisements reinforced the campaign's key messages in newspapers.

The Soap Opera, "Family Happiness"

ZdravPlus has produced a series of soap operas on PHC topics in Uzbekistan. "Family Happiness" introduces the sensitive topic of family planning, while also promoting increased communication about contraception between couples. PHC clinics are portrayed as places where couples can receive counseling on different methods of family planning. The soap opera follows how one couple struggles to come to an agreement on whether they should have more children than the three they already have. The husband wants to have more children and the wife would like to stop. The story follows this struggle, while conveying messages about the importance of birth spacing and the safety and effectiveness of the different methods of contraception. While the struggle is being played out, the soap opera follows the lives of the newly-wed PHC nurse and her husband, who are heroes in the soap opera series, and their decision to use family planning—a controversial message in a culture where newlyweds are expected to have a baby as soon as possible.

Thanks to the campaign, today the population in Ferghana Oblast is more knowledgeable about the range of contraceptives available and more confident that those contraceptives are safe to use. A KAP survey conducted about six months after the campaign showed an impressive increase in the population's knowledge about these methods. Women in particular now know more about oral contraceptives, injectables, and condoms. To quote the PHC doctor in Ferghana; now "[women] are giving more attention to other kinds of contraceptives such as injectables and pills. After the campaign, use of these methods increased. As a result, sicknesses like anemia and gynecological problems [which could be related to IUD use] have decreased… We have also seen a decrease in the number of abortions because women are preventing unwanted pregnancies and they are keeping longer intervals between children."

The KAP surveys conducted before and after the campaigns revealed diversification in contraceptive methods used. While the IUD remained the preferred contraceptive method, use of both injectables and oral contraceptives increased.

Summary of Population Strategy 2: Empower the Population to be More Responsible for its own Health through Community-based Health Promotion

ZdravPlus sought to institutionalize health promotion within local institutions—most notably primary health care facilities, but also schools and government centers for healthy lifestyles—in order to make health information readily available and to begin to foster a culture where people would take the initiative to seek out health information and where reliable, understandable health information would be accessible to the population. The vision was to create sustainable mechanisms for dissemination of health information, while creating demand for such information on the part of the population. Enabling PHC facilities to serve as health information resource centers in their communities and disseminate health information through community-level organizations was an important part of this vision.

Key strategies included a) training for doctors, nurses, and midwives on interpersonal communications skills; b) work through existing community structures, such as the mahalla in Uzbekistan; c) Support to NGOs working on addressing health-related issues; d) Support for health education in the schools.

With the recognition that the Soviet medical education system had not prepared providers to communicate health information accessibly to the population, ZdravPlus and the NGO Café in Andijon, Uzbekistan, carried out training for patronage nurses and midwives on a variety of topics, including **interpersonal communications skills**, adult learning theory, methods for health promotion and patient education, as well as some basic clinical skills, to help them communicate health information to their patients during home visits. A more focused interpersonal communications skills curriculum was developed for health care workers by ZdravPlus, and implemented throughout the region, with the general curriculum being adapted as necessary for doctors and nurses and for each country. Teams of trainers were prepared in each of the five Central Asian republics, who then conducted trainings on topics such as greeting patients, asking questions, explaining basic information, using simple language and employing visual aids. While the IPC course itself is only 2-3 days long and clearly represents just one step in changing providers' behavior, the course accomplishes two major things: 1.) opens providers' minds to the idea that a new form of communication with patients is both possible and beneficial; and, 2.) provides concrete techniques and skills that can be used in communicating with patients.

ZdravPlus used existing community structures—such as the **mahalla**, which can be described as a traditional delineated neighborhood with an existing social structure—to disseminate health information, providing training to respected community leaders and involving the local PHC doctor in the process. The results were encouraging, with improved connections developed between SVPs and mahalla residents and improved health knowledge amongst the population. Most importantly, once given the tools to educate their peers on health topics, the mahalla represents a sustainable vehicle for ongoing health education.

In addition to working with the mahallas, ZdravPlus provided support to **local non-governmental organizations (NGOs)**, first in Ferghana, Uzbekistan and then region-wide. Beginning with a small grants program in Ferghana and provision of support services to NGOs in the oblast under ZdravReform, ZdravPlus provided support to the NGO sector, with trainings on health topics, guidance on how to carry out population activities, access to consultations and individualized support, and a link with other NGOs working on health topics. The link became more formalized with the creation of the Ferghana NGO network, which meets regularly and has carried out some joint projects. Working in cooperation with Counterpart International, in 2003, the grants program was expanded to offer small grants and technical assistance to NGOs and community groups in all five countries of Central Asia, with the goal of helping to develop local capacity for health and health education projects, and facilitating the building of bridges between health care workers and community groups. In sum, a total of 296 grants Healthy Communities grants were awarded region-wide.

ZdravPlus also supported **health education in the schools** in both Uzbekistan and Kyrgyzstan, with local teachers trained in interactive teaching methods and health topics, to allow them to prepare the next generation to live a healthy lifestyle and to take responsibility for their own health.

Population Strategy 2: Empower the Population to be More Responsible for its own Health through Community-based Health Promotion

One of ZdravPlus' aims was to make PHC facilities into resource centers for their communities, where people feel comfortable enough to come at anytime for general information about health without needing an appointment. Thus, one of the project's prime efforts has been directed toward helping PHC workers communicate more effectively with the population, in one-on-one encounters with patients, through community education activities, and by making educational materials available to the public in their facilities. Not only does this contribute to improving access to health information, it also contributes to democratization, with information exchange established on the community level.

Primary Health Care Facilities as Centers for Community Health

Community health work was carried out in a variety of ways, by providing health care workers from local PHC facilities with the skills to undertake outreach activities in their communities and encouraging them to do so. Such facilities took part in campaigns and interpersonal communications activities, as described above, but also integrated further community health work into their daily activities and built stronger links between the PHC facilities and community structures.

Several good examples of the ZdravPlus approach to community based health promotion come from Uzbekistan. Recognizing the potential role of primary health care facilities (SVPs in Uzbekistan) in health education and promotion, ZdravPlus used a number of strategies to build the skills of SVP staff, particularly nurses, in community health education. The first of these strategies was to train mid-level staff (nurses and midwives) to make more effective use of the home visits they routinely conduct to check on the health of pregnant women, young children and patients with chronic conditions. Working with the NGO Central Asian Free Exchange (CAFE) in Ferghana Oblast, ZdravPlus supported a series of three-day trainings which included sessions on interpersonal communication skills, adult learning theory, and methods for health promotion and patient education, as well as some basic clinical skills. In all, 352 patronage nurses and 74 midwives were trained. Results from these trainings were encouraging, with reports from the SVP doctors indicating that the patronage nurses demonstrated improved assessment skills and better relationships with the population. Doctors also reported improvements in the midwives' skills, better detection and prevention of anemia and pre-eclampsia and better follow-up of prenatal patients.

Another strategy was to link SVPs with their local mahallas which have the potential to play an important role in community health. Mahalla means community in Uzbek, but it also the lowest government-recognized administrative unit and functions as a support-system for local residents. Each mahalla is governed by a community-elected leader and assembly. ZdravPlus worked with mahallas to create Mahalla Health Initiative Groups (MHIGs), including opinion leaders, mahalla committee members, the doctor and patronage nurse from the SVP, respected elders, teachers and a health promotion center educator. The goal of the MHIGs has been to foster greater involvement of the community in SVP health promotion activities.

The first series of two-day trainings for the MHIGs included sessions on team building skills and breastfeeding, since ZdravPlus was about to launch a breastfeeding campaign. As a result, promotion of breastfeeding occurred at home as well through mahalla leaders and health workers. The second training session focused on prevention of diarrhea and preparation of oral rehydration solution at home. During the one-day training, information was provided on prevention of diarrhea and dehydration, there was a demonstration of how to properly prepare oral rehydration

solution and viewing of TV spots from the health promotion campaign, "Protect your Child from Diarrhea." Afterwards, several doctors indicated that they noticed an increase in the percentage of women who are exclusively breastfeeding their infants. Other SVP doctors noticed a decline in the incidence of diarrhea compared with prior years. All SVP doctors noted that the MHIGs played an important role in providing their communities with information on how to prepare and take Rehydron and on danger signs when a sick child should be taken to a doctor immediately.

Organization of the MHIGs helped bring communities together and empower them. As a result, not only are SVP doctors thinking about health, but the mahalla activists, elders, religious leaders, and teachers are also now openly talking about health issues and disseminating health information to their communities during meetings, in tea houses, at women's gatherings and at schools. Mothers have come to understand the role of SVPs in preventive care and have started to visit their doctor not only for treatment, but also when they want information about how to take care of a child, proper nutrition, how to prevent illnesses or when to get immunizations. In addition, the population in the pilot sites has started to show greater respect for their SVPs. Communities are beginning to understand that they can get health information not only from the hospital in town, but also from SVP doctors and nurses in their own villages.

A third strategy was to establish mothers' clubs through SVPs in Ferghana. ZdravPlus collaborated on trainings with some NGOs that provided information to SVPs on a range of topics, including reproductive health and breastfeeding, using interactive teaching methods. The goal of these trainings was to provide a support system for women of reproductive age and to encourage them to share their experiences and learn from each other. During interviews with participants in the mothers' clubs, many women indicated that they had received useful information on various health topics, and had found the information on contraceptives particularly useful. A number of the women said that doctors do not usually provide them with complete information when prescribing contraceptives, leaving them uncertain and somewhat afraid of using them. Participation in the mothers' groups enabled them to talk with other women and health workers about their concerns and fears and provided them with enough information to be able to choose a contraceptive method. Similar groups were also created in other countries, with, for example, mothers' groups and birth preparation classes becoming more and more common in ZdravPlus pilot sites in Kazakhstan.

Interpersonal Communications Skills Training (IPCS)

As ZdravPlus carried out its health promotion work, it became clear that most health workers did not understand the basic principles of effective interpersonal communication. About half way through the project, ZdravPlus, in consultation with counterparts, decided to embark on a large-scale effort to improve these skills in order to help PHC facilities move into their role as information resource centers in their communities. Improved communications skills also had the potential to dramatically change the relationship between health workers and the population, making doctors and nurses more client-oriented and more able to communicate with population.

A curriculum for a 2-3-day training course was designed, emphasizing the basic principles of communication, such as listening to the patient, keeping the message simple, using visual aids and checking comprehension. A group of trainers, as well as three master trainers, from three countries was trained and went on to conduct IPCS courses for hundreds of health workers in all five countries of the region and even institutionalized the course in family medicine programs in some countries.

Assessments of the results of the IPCS training were undertaken toward the end of the project by observing providers in communication with the population and through a client survey. The results of the Uzbekistan assessment demonstrated that trained doctors and nurses were putting their IPCS skills to good use, achieving average overall scores of 88 percent for doctors and 84 percent for nurses. They showed respect for the patient, understood the patient's values and

standards, made the patient feel welcome, and asked questions that the patient could respond to. However, both doctors and nurses frequently forgot to use nonverbal (body) language, use humor appropriately to make the patient relax, and use praise when the patient made good points.

Differences between personnel who had been trained in IPCS and those who had not were very apparent during ZdravPlus' campaign on breastfeeding in Uzbekistan. When holding meetings with mothers-in-law, trained health [promotion] center staff facilitated "community conversations" and changes were later noted in these women's attitudes and practices. Results from the KAP surveys provide indication that SVP staff is indeed playing a larger role in their communities as health educators.

Small Grants to Support Local NGOs

When ZdravPlus launched its small grants program for NGOs in Ferghana, Uzbekistan, in 1998, the rationale was to enhance the population's involvement in their own healthcare and to empower communities to address their own health needs and priorities. It was expected that with the help of trainings, grants, and materials, NGOs would be able to develop health interventions to mobilize the community to identify and address health issues themselves—a vital component of health reform. ZdravPlus provided small grants to NGOs and community groups to strengthen the link between communities and SVPs, to develop community-based health interventions, to encourage community members to take more responsibility for the own health, and to make SVPs more responsible and accountable for the health of the population in their catchment areas. The grants required the NGOs to work with the population, the mahalla, and the SVP, building bridges between the three. They also provided seed money for NGO development and strengthening, an important step in building civil society.

Between 1999 and 2002, ZdravPlus funded five rounds of grant awards, with a total of 47 grants. In 2003, Counterpart International (formerly Counterpart Consortium), a USAID-funded project that provides support and training for NGOs, took over the administration and funding of the grants, while ZdravPlus contributed technical expertise on health topics and communications skills. Most of the grants supported community-based health promotion in areas such as reproductive health, STIs, diarrhea, hygiene, hepatitis, maternal and child health, mother support groups, breast feeding, iodine deficiency, diabetes, and AIDS. Counterpart offered a variety of short courses for the NGOs, including participatory community appraisal, project design, and NGO registration, as well as technical assistance on organizational development. ZdravPlus continues to provide technical assistance and training on specific health topics, health promotion and design of health projects.

As they grew stronger, the NGOs working in health in Ferghana came together as the NGO Network and started to meet monthly, providing an opportunity for the NGOs to share information and experiences, discuss common problems and develop joint strategies. These monthly meetings also allowed donors to announce upcoming events and funding opportunities. Based on an initial collaboration on "There is No Place for AIDS in Ferghana", work on AIDS, the NGO Network now receives funding and support from Population Services International to work on AIDS prevention and social marketing of condoms. A consortium of NGOs within the Network also successfully applied for a Healthy Communities Grant from Counterpart to continue their work on AIDS awareness.

The Healthy Communities Grants Program (implemented jointly with Counterpart International and Soros Foundation Kyrgyzstan/OSI in Kyrgyzstan) was launched in 2003, and provided an opportunity to support local NGOs and community groups in their work on related issues, thus helping to encourage grassroots-level work on health topics and to empower local non-governmental groups to take on work in this field, and to help build bridges between health care workers and the community. Healthy Communities grantees covered topics including organizing information campaigns on drug addiction, smoking, STIs and TB protection among teenagers;

anemia, iodine-deficiency and TB control; malaria; reproductive health; social services; aid to disabled children and adults; establishing hospice services and arterial hypertension patient schools. Infrastructure projects were also funded under the program, including water projects and refurbishment of rural health facilities. ZdravPlus provided grantees with technical assistance, including how to prepare health promotion materials and conduct campaigns, as well as information on specific health topics, including child health, reproductive health, and hypertension, and assistance in finding evidence-based medical information related to the projects.

These local grantees in all five countries (the program was effectively discontinued early in both Turkmenistan and Uzbekistan, due to government restrictions which severely limited the ability of local organizations to receive grants) served as a counterbalance to the national government centers conducting health promotion activities. In sum, a total of 296 small grants (under $5000) were given under the program.

These national health promotion centers in each country, referred to by various names such as the Center for Healthy Lifestyles or the Institute of Health, under the MOH also played a role in providing health information to the population, both through PHC facilities and other channels. ZdravPlus cooperated with the Centers in each country, to varying degrees, depending on the receptiveness of the national center and the potential for synergies.

School Health Education in Uzbekistan, Kyrgyzstan Poised to go National

When the Government of Uzbekistan issued a legal order in 2000 requiring that health lessons be taught in schools across the country, it provided nothing more than a list of topics to be taught, and teachers were at a loss what to do. But ZdravPlus understood the importance of teaching a responsible approach to healthy lifestyles from a young age and joined with the international NGO CAFÉ to develop a series of interactive lesson plans for grades 1-8, later formalized into a health education curriculum for consideration by the Ministry of Education (MOE).

By November 2002, the first draft of the school health curriculum was complete and focused on health topics identified as important by the government, including hygiene, infectious diseases, reproductive health and substance abuse. The draft curriculum was supported by the MOE and the Ferghana Oblast Department of Education for implementation in pilot sites. 'Health teachers' were selected from 14 pilot schools in seven districts to participate in a ZdravPlus school health training course. The course taught the health teachers child-centered interactive teaching methods to make lessons not only educational, but also fun. A set of lessons with up-to-date information was given to teachers at these trainings for use in the pilot schools. These lessons were designed to capture the students' attention, thereby ensuring that the health messages were well received by students, teachers, and the community.

The curriculum is more than a simple learning experience for children and teachers—it is an avenue for schools to become centers of health promotion in their communities, with the school and the child at the hub of this information web. All health lessons include homework, where the children are expected to go home and teach their families what they have learned. It also teaches how to conduct community health fairs, which became interesting, fun-filled events that helped spread important health messages not only to students, but also to staff, parents and the broader community.

The success of the first health lessons and testimonies from the teachers were major factors affecting the decision of the MOE to approve the curriculum for implementation nationwide in September 2003. With the support of the MOE and the enthusiastic cooperation of the Ferghana Oblast Department of Education, the curriculum was institutionalized in the Ferghana Teachers' Retraining Institute and, in 2005, teacher-trainers from each oblast were prepared to train other teachers around the country.

In Kyrgyzstan, ZdravPlus has also worked on school health education, in collaboration with The World Bank, the Open Society Institute, WHO and others. Following WHO's Healthy Schools model, the Kyrgyzstan program seeks to gradually introduce health education into all grades and raise students' understanding of healthy lifestyles. The MOH and MOE are working together to develop and introduce the program at a pace of two grade levels per year. Thus, pilot schools initially introduced the program in grades one and five, moved on to grades two and six in the second year—and so on. Meanwhile, other schools started with grades one and five.

Teachers receive ten days of interactive training in healthy lifestyle methodologies and then offer classes 1-2 times a week for approximately 44 hours a year. In addition to teaching students healthy behaviors such as proper nutrition, preventing communicable diseases and knowing the harmful effects of smoking, alcohol, and drugs, the head of the program states that her overall goal includes making school children socially responsible individuals. Recognizing the importance of parents reinforcing health messages at home, the pilot schools began establishing parents' groups and the MOE started up a program of health education for adults.

Students actively participate in health education lessons

by drawing pictures that tell stories about related themes.

Summary of Population Strategy 3: Marketing the Reforms to Build a More Responsive Health System

Throughout the project, ZdravPlus worked to empower and educate the population and to foster a sense of personal responsibility for one's health, and to gain support amongst the public and policymakers for health care reforms. This was done through several major avenues: earlier in the project, efforts focused on allowing free choice of health care provider and conducting enrollment campaigns and later moved onto marketing other health care rights and responsibilities and institutionalizing policy marketing activities—through both the Ministry of Health and NGOs—to ensure sustainability for the future.

Began under ZdravReform, population enrollment campaigns remained a cornerstone of the ZdravPlus project in Kyrgyzstan and Kazakhstan. The campaigns supported the principle that people should have the right to choose their health care provider, and that free choice of primary health care facility provided a mechanism to ensure that people could "talk with their feet" by taking their money (via per capita payment) with them if they were not satisfied with the service provided by the facility. This gave individuals an interest in their health care and the power to have a say in the system, and gave providers an incentive to see the population as their clients and to adjust their services to meet the needs of the population.

In Kyrgyzstan, other rights and responsibilities, in addition to free choice of provider, were also marketed through ZdravPlus as they were introduced into the health care system. These included the introduction of co-payments for services and the outpatient drug benefit. This work was carried out in large part by the Ministry of Health Press Center, which was established in 2002 with support from ZdravPlus.

In Uzbekistan, work was begun to more broadly market the Patients' Bill of Rights to the public, as a progressive law on patients' rights is in place in the country. However, due to changing tides in the Ministry of Health, work in this area did not move forward, and a draft brochure on patient rights remains unpublished, awaiting the pending approval of the Ministry of Health. However, in Uzbekistan, ZdravPlus was able to successfully develop video materials and a booklet aimed at general practitioners, to educate them about the reforms. These materials have been used during seminars at all levels of the health care system, and have served to help providers and health care managers better understand the financing and management changes in the health care system, and to adapt to the changing relationship between health care providers and the population.

Through MOH Press Centers established with ZdravPlus support in Kyrgyzstan (2002) and Tajikistan (2004), the function of marketing the reforms has been institutionalized within the MOH. Additionally, the Project's support to professional NGOs helped establish them in the role of educating their members about the reforms and advocating for the rights of PHC providers and family medicine as a whole.

Population Strategy 3: Marketing the Reforms to Build a More Responsive Health System

Marketing of the reforms at first centered on encouraging the population to avail themselves of specific entitlements under the health reforms, but later evolved to building broad support for the reforms among policy-makers, health workers and the population as a whole.

Free Choice of Provider and Population Enrollment

The right of the population to choose their own PHC provider is a cornerstone of the reforms and was established in Kyrgyzstan and in health reform sites in Kazakhstan under ZdravReform and continued under ZdravPlus. It has not yet been implemented in Tajikistan or Uzbekistan but is planned for both countries. Free choice of provider is a major departure from the Soviet health system, where people were simply assigned to a facility. It is reinforced through new payment systems, whereby the PHC facility receives a fixed capitated payment for each person who enrolls in the facility, providing incentives for health care workers to attract and efficiently and effectively serve a larger population by being more responsive to the population's needs, providing quality care, with a strong preventive health focus, and using resources as efficiently as possible. The vehicle used by ZdravPlus and its partners to implement free choice of provider is population enrollment.

Enrollment campaigns entail gaining the support of health sector leaders, followed by marketing activities to explain the benefits of population enrollment to health workers and the population and how to enroll. This culminates in actual enrollment over a period of a few weeks. The marketing campaign involves a broad range of activities, from posters, billboards and mass media explaining when and where enrollment will take place, to door-to-door campaigning by health workers, promotional displays and "open houses" in health facilities, and flyers handed out by health workers to promote their facilities.

Under ZdravPlus, the project itself gradually handed the responsibilities for enrollment campaigns to local organizations, including the FGPA in Kyrgyzstan and the oblast-level FGP Associations and local health departments in Kazakhstan. Thus, the process of enrollment and regular re-enrollment periods have been institutionalized in local organizations, with ZdravPlus providing technical support to the implementers as necessary, especially when enrollment expands to an additional site.

As a result, in Kyrgyzstan, by 2004, 38 percent of the population nationwide was enrolled with a provider of their choice. In Kazakhstan, 52 percent of the population was voluntarily enrolled in the mature pilot site of Karaganda Oblast, while the entire population was reported to have enrolled in PHC facilities in the cities of Zhezkazgan, Satpaev, and Semipalatinsk.

Enrollment, which gives people the right to choose their health care facility and "talk with their feet" by leaving a facility and taking their financing with them has a profound change on the nature of the doctor-patient relationship, with health workers making changes in their approaches to the population in order to attract clients. It also has a democratizing effect, shifting power in health care from health and financing authorities and health providers to the population, providing incentives for the health system to increase its responsiveness and enabling the population to make choices and take responsibility for their own health care.

Marketing Other Rights and Responsibilities

In Kyrgyzstan, marketing of specific population rights and responsibilities went well beyond population enrollment, as the reforms gave the population new rights and responsibilities. Most significant among these were the introduction of co-payments for services, to replace informal payments and bring those resources into the formal health sector, and the introduction of the outpatient drug benefit. The outpatient drug benefit allowed PHC providers to prescribe drugs which the patient obtained at a pharmacy of their choice with payment through a combination of health purchaser reimbursement and patient co-payment. It strengthened and promoted PHC and enabled patients to obtain subsidized drugs rather than being unnecessarily hospitalized at great cost to the health system. The MOH Press Center, founded in 2002, was also instrumental in marketing of the reforms, both to policy-makers and the population—in particular the introduction of co-payments and the basic benefits package (see Stewardship section).

Patients' Bills of Rights

In addition to work carried out by the MOH Press Center in Kyrgyzstan to educate the population on specific rights and enable them to act upon these rights, in Uzbekistan, specific work was carried out towards implementation of a Patients' Bill of Rights.

In Uzbekistan, a progressive law on patients' rights is already in place and considerable progress was made toward preparing a brochure for the public—with participation by the public—in outlining patients' rights and responsibilities. This brochure not only states the services to which patients are entitled—which is the way people's health care rights are generally understood in a post-Soviet environment—but sets out the rights of consumers of health care in international terms, including the right to privacy, the right to information about their health status, the right to consent to or refuse medical care, the right to choose a health provider and health facility and other widely recognized rights. Counterbalancing patients' rights, the brochure also outlines patients' responsibilities, such as being responsible for ones own health by leading a healthy lifestyle, providing health workers with accurate information about one's health status during a consultation and following the doctor's recommendations. Despite MOH involvement in the development of this brochure, by the end of the project, it was not clear if the MOH would endorse it, paving the way for it to be printed, distributed and used as a tool for public education.

Marketing Broad Reform Concepts

As policy marketing matured in the region, ZdravPlus moved beyond just marketing specific rights and responsibilities, to focus on building broad support for the reforms by marketing reform concepts to various target audiences. Significant work was carried out in this area in all of the countries aside from Turkmenistan, with the most work done in Kyrgyzstan and Kazakhstan, less in Uzbekistan, and work just beginning in the last two years of the project in Tajikistan. Through working groups at the national level, ZdravPlus engaged with policymakers both inside and outside of the Ministry of Health to promote reform strategies by gaining understanding of the changes necessary to improve the health care system. This is covered in greater detail in the Stewardship sections under Kazakhstan, Kyrgyzstan, and Tajikistan.

In Uzbekistan, efforts focused on educating both policy makers and health workers about the reforms. ZdravPlus engaged with senior and mid-level policymakers at the MOH, Ministry of Finance, along with oblast level officials and all levels of health personnel, to increase their understanding of the reforms and primary health care and why they are beneficial. This entailed a variety of activities for various target audiences. For senior officials involved in developing PHC and needing a more in-depth understanding of the concept, ZdravPlus partner, Boston University, prepared a monograph "Primary Care: Summary of Recent Developments" which ZdravPlus distributed and used it as a tool for policy dialogue. The document presents the rationale for primary care, outlines major issues in primary care and compares how different countries have addressed these issues. In addition, ZdravPlus joined with DFID and the World Bank-assisted

Health project in Uzbekistan, to host a regional conference on family medicine which was held in Tashkent in April 2002 and attended by senior officials from all over the former Soviet Union. This event gave Ministry officials, academics and others an opportunity to gain a broad international perspective on PHC, to share regional experiences in PHC reform and family medicine training, to disseminate best practices and achievements to date and to draw lessons learned from experience all over the region.

For mid-level policy makers and health workers, two other materials were developed, which promise to be enormously valuable as the PHC reforms are rolled out nationwide in the coming years. A short video helps people "visualize" the health reforms and PHC, explaining why they were adopted and providing an overview of their major provisions, including the new financing and management systems, the introduction of General Practitioners and the changing relationship between health workers and the population. ZdravPlus has used the video in workshops and seminars at all levels of the health system, during training of the new "financial managers" for PHC, retraining of doctors during postgraduate education and elsewhere. A companion piece for the video is a booklet on the reforms which provides more in-depth information. Since it is less-expensive to reproduce and does not require a TV and VCR, the booklet can be more widely disseminated.

The second phase of the marketing of the reforms will target the general public, encouraging people to more actively utilize primary health care services and to take responsibility for their own health. This phase will also promote the population's right to free choice of PHC facilities and culminate in a free enrollment campaign. During this second phase of policy marketing, the plan is to use mass media, print materials and meetings to get the message across to the public.

Institutionalizing Policy Marketing

As health reforms take root in MOHs, recognition grows that the policy marketing function needs to be institutionalized. With that in mind, the Kyrgyz MOH, in 2002, with limited financial and technical support from ZdravPlus, established a Press Center to inform the population about the reforms and how they affect them and their health. In 2004, Tajikistan followed suit.

In Kyrgyzstan, even before the establishment of the MOH Press Center, the FGPA and other professional associations had come to recognize that it was in their interests to build a constituency for the health reforms, and had already begun to work actively with the press. Today, these non-governmental organizations serve as a counterbalance to the Kyrgyzstan MOH Press Center, working toward similar goals, but from a different perspective.

MOH Press Centers

The Press Center in Kyrgyzstan was established in 2003, under the Ministry of Health. The work of the Center, which is charged with disseminating information on health reform and health topics through television, radio and print media, as well as through round tables and other similar events, is discussed above and under the Kyrgyzstan Stewardship section. A similar Press Center was established in Tajikistan in 2004.

NGOs as Advocates for the Reforms

Professional family medicine associations registered as NGOs played a large role in educating their members about the reforms and building support among that critical group. They also advocated for reforms on behalf of health providers in both Kazakhstan and Kyrgyzstan, most significantly protecting and promoting the interests of PHC providers. For example, the Kyrgyzstan FGPA managed to gain official recognition of family medicine as a specialty and did much to lay a foundation for family nursing there. The FGPA also took on the role of coordinating enrollment campaigns throughout the country. In Kazakhstan, both the Kazakhstan Association of Family Physicians and the Zhezkazgan Family Group Practice Association have raised the profile of family medicine amongst health care providers—and, in turn, amongst the population—

through the provision of clinical trainings to members. Additionally, several members of the Zhezkazgan FGPA are now elected members of the city mejlis (parliament) and represent the issues of family medicine. Additionally, towards the end of the project, the Zhezkazgan FGPA began a lobbying effort amongst national government to make sure that FGP staff in Zhezkazgan (where FGPs are privately owned and managed, but provide services to the population from the government budget) not be excluded from salary increases. In Kokshetau, Kazakhstan the local branch of KAFP managed to fend off the closure of Family Group Practices for two years. KAFP branches nationwide worked to educate local officials about family medicine through regular informational meetings, and towards the end of the project, began to conduct outreach activities aimed at reaching doctors in rural areas to educate them about family medicine and the changes taking place in the health care system. (Similar examples of advocacy on the part of the FGPA was seen in Semipalatinsk, Kazakhstan. The Semipalatinsk example is highlighted in the Stewardship: Kazakhstan section).

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ABBREVIATIONS

ADB	Asian Development Bank
AED	Academy for Educational Development
AFPZ	Association of Family Physicians in Zhezkazgan
AH	Arterial Hypertension
AIHA	American International Health Alliance
AKF	Aga Khan Foundation
AMCREI	Association of Medical Clinical and Research Education Institutions
ARI	Acute respiratory infection
BBP	Basic Benefits Package
BWAK	Business Women's Association of Kazakhstan
CAFE	Central Asian Free Exchange
CAR	Central Asian Region
CARINFO	Central Asian Region Information
CBO	Community based organization
CI	Counterpart International
CDC	US Centers for Disease Control and Prevention
CDD	Control of Diarrheal Diseases
CHD	City Health Department
CHL	Center for Healthy Lifestyles
CIF	Clinical Information Form
CME	Continuing Medical Education
CNE	Continuing Nursing Education
COM	Cabinet of Ministers
COPD	Chronic Obstructive Lung Disease
COR	Council of Rectors
CPG	Clinical Practice Guidelines
CPIB	Central Project Implementation Bureau
CQI	Continuous Quality Improvement
CRH	Central Rayon Hospital
CSG	Clinical Statistical Group
CSSC	Civil Society Support Center
DBMS	Database Management System
DFID	Department for International Development (United Kingdom)
DIC	Drug Information Center
DHS	Demographic Health Survey
DOTS	Directly Observed Treatment Short Course
DRG	Diagnosis Related Groups
EBM	Evidence Based Medicine
EDL	Essential Drug List
EDIN	Eurasia Drug Information Network
EDL	Essential Drugs List
EKG	Electro Cardiogram
EKO	East Kazakhstan Oblast
ERD	Economic Relations Department
F&M	Financing and Management
FAP	Feldsher/Midwife Ambulatory Post
FD	Family Doctor
FGP	Family Group Practice
FGPA	Family Group Practice Association
FM	Family Medicine
FMC	Family Medicine Center
FMCTC	Family Medicine Clinical Training Center
FMNTP	Family Medicine Nurse Training Program
FMRP	Family Medicine Residency Program
FMTC	Family Medicine Training Center
FP	Family Planning
GBAO	Gorno Badakshan Autonomous Oblast
GBP	Guaranteed Benefit Package
GBP	Gorodskoi Vrachebnii Punkt (Uzbekistan)
GP	General Practitioner
GPTC	General Practitioner Training Center
GRC	Grant Review Committee
HA	Hospital Association
HAI	Health Action International
HCGP	Healthy Communities Grants Program
HCQCC	Health Care Quality Control Committee (Kazakhstan)
HDS	Health Delivery System
HF	Health Finance
HIC	Health Information Center
HIF	Health Insurance Fund
HIS	Health Information System
HLS	Healthy Lifestyles
HM	Health Management
HOH	Houses of Health
HPAP	Health Policy Analysis Project
HPC	Health Purchasing Center
HPS	Hospital Payment Systems
HR	Human Resources
ICD-10	International Classification of Diseases Version 10
IDC	International Diseases Code
IEC	Information, Education, and Communication
IHIS	Integrated Health Information System
IKO	Issyk-Kul Oblast

IMCI	Integrated Management of Childhood Illnesses
IOH	Institute of Health
IPCS	Interpersonal Communication Skills
IUD	Intrauterine Device
JICA	Japan International Cooperation Agency
JPID	Joint Project Implementation Bureau
JSI	John Snow Inc.
JWG	Joint Working Group
KAP	Knowledge, Attitudes, and Practices
KAFP	Kazakhstan Association of Family Practitioners
KCH	Keeping Children Healthy
KFLHP	Kyrgyz-Finnish Lung Health Program
KKP	Karakalpakstan Autonomous Region - Uzbekistan
KSMIRCE	Kyrgyz State Medical Institute on Retraining and Continuous Education
KSMA	Kyrgyz State Medical Academy
LAC	Licensing and Accreditation Commission
LAM	Lactational Amenorrhea Method
M&E	Monitoring and Evaluation
MA	Medical Academy
MAC	Medical Accreditation Commission
MASHAV	Israel's Centre for International Cooperation
MCH	Maternal and Child Health
MHI	Mandatory Health Insurance
MHIF	Mandatory Health Insurance Fund
MHIG	Mahalla Health Initiative Group
MIC	Medical Information Center
MIS	Medical Information System
MMR	Maternal Mortality Ratio
MOE	Ministry of Education
MOEBP	Ministry of Economy and Budget
MOF	Ministry of Finance
MOH	Ministry of Health
MOU	Memorandum of Understanding
MSF	Medicins Sans Frontieres
MTBF	Medium Term Budget Framework
NCC	Nurse Coordinating Council
NCDE	National Center for Drug Expertise
NCMEPHC	National Center for Medical and Economic Problems of Health Care
NDP	National Drug Policy
NFMRP	National Family Medicine Residency Program
NGO	Non-Governmental Organization
NHA	National Health Accounts
NHLC	National Healthy Lifestyles Center
NHPC	National Health Promotion Center
NNM	Neonatal Mortality
NTC	National Technical Committee
OCP	Oral Contraceptive Pills
ODBP	Outpatient Drugs Benefits Package
OFD	Oblast Finance Department
OHD	Oblast Health Department
OPIB	Oblast Project Implementation Bureau
ORA	Orphans, Refugees and Aid International
ORS	Oral Rehydration Solution (Rehydron)
OSCE	Objective Structured Clinical Exam
PACTEC	Partners for Communications Technologies
PAL	Practical Approach to Lung Health
PCV	Peace Corps Volunteer
PDB	Population Database
PEPC	Promoting Effective Perinatal Care
PGI	Postgraduate Institute
PGMI	Postgraduate Medical Institute
PHC	Primary Health Care
PIB	Project Implementation Bureau
PIU	Project Implementation Unit
PPS	Provider Payment System
PSI	Population Services International
QA	Quality Assurance
QC	Quality Committee
QI	Quality Improvement
QIP	Quality Improvement Pilot Project
QIS	Quality Improvement System
RH	Reproductive Health
RHD	Rayon Health Department
RHPC	Republican Health Promotion Center
RIAC	Republican Information and Analytical Center
SES	Sanitary and Epidemiological Service
SHCDP	State Health Care Development Program
SOW	Scope of Work

SPA	Specialty Professional Association
SPH	School of Public Health
STI	Sexually Transmitted Infection
STLI	Scientific Technology and Linguistics Institute
SUB	Small Rural Hospital
SVA	Semeinaia Vrachebnii Ambulatoria (Kazakhstan)
SVP	Semeinii Vrachebnii Punkt (Kyrgyzstan)
SVP	Selskii Vrachebnii Punkt (Uzbekistan)
SWAp	Sector-Wide Approach
TA	Technical assistance
TIAME	Tashkent Institute for Advanced Medical Education
TMA	Tashkent Medical Academy
TB	Tuberculosis
TIMC	Tashkent International Medical Clinic
TOR	Terms of Reference
TOT	Training of Trainers
TSMI	Turkmen State Medical Institute
TSMU	Tajik State Medical University
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
USG	United States Gorvernment
UZMPA	Uzbekistan Medical Pedagogical Association
VHC	Village Health Committee
VHI	Voluntary Health Insurance
WB	World Bank
WCHD	Woman and Child Health Development Project (ADB)
WG	Working Group
WHO	World Health Organization
WONCA	World Organization of Family Doctors
WTO	World Trade Organization
ZP	ZdravPlus