Family Medicine Specialist Training Program
Scientific Technology and Language Institute and others
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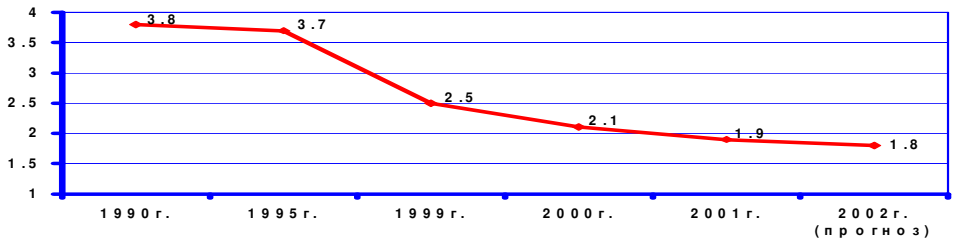
In 1995, the Ministry of Health (MOH) of the newly independent country of Kyrgyzstan began planning a comprehensive health reform project, entitled "Project Manas", in honor of the hero of their national epic poem "Manas". A key element of this project was strengthening primary health care services by introducing the specialty of Family Medicine (FM). Since the specialty of FM or its equivalent was unknown in their Soviet-style medical system, the MOH requested the help of foreign FM doctors to introduce the specialty. A newly formed Christian-based non-governmental organization named the Scientific Technology and Language Institute (STLI) responded to the request by providing volunteer physicians and nurses from multiple countries and from multiple mission organizations. By 1996, the MOH, WHO, World Bank, USAID and STLI had all agreed on a plan for health care reform in general and for the introduction of FM in particular. By March of 1997, the first FM training began, initially focusing on a training of trainers (TOT) program to retrain Kyrgyz internists, pediatricians and gynecologists to become teachers of FM. It soon became evident that the new family doctor trainees could not function as family doctors unless nurses were also retrained as FM nurses. Consequently, STLI nurses also retrained nine nurses as clinical FM nurses that first year, and then started a FM nurse TOT program. Since then the FM training has expanded to include the retraining of thousands of primary care doctors and nurses, a national two-year postgraduate training program for recent medical school graduates, a new continuing education system for graduates of all of these programs, and the publication of FM training material in Russian, especially in nursing.

National Health Statistics

From the World Bank "World Development Report 2000/2001"

Country	Infant Mortality per 1000	Under-5 Mortality per 1000	Under-5 Malnutrition	Maternal Mortality per 100K	Life Expectancy At Birth ('98)
Kyrgyzstan	26	41 In 1998	11%	65	Men=63 Women=71
United States	7	15 In 1980	1%	8	Men=74 Women=80
Russian Federation	17	20 In 1998	3%	50	Men=61 Women=73
Uganda	101	170 In 1998	26%	510	Men=42 Women=41
Uruguay	16	19 In 1998	4%	21	Men=70 Women=78

When Kyrgyzstan somewhat reluctantly became independent from the USSR in 1991, it faced many major problems. The amount of money available for health care has decreased steadily ever since. The graph below reflects government spending on health care as a percentage of the GDP. The negative impact of this drop is magnified by the fact that the GDP has also declined dramatically since independence. This economic crisis has triggered a health care crisis, since Kyrgyzstan's health system is socialized.



Health Care Expenditure by the Government of Kyrgyzstan
(as a percentage of the GDP)
Dr. Ainura Ibraimova – Deputy Minister of Health of Kyrgyzstan (Dec. 2001)

This health care crisis prompted an evaluation of the entire health care system. One dominant problem was that only 10% of health care funding was being used to for primary care. The number of health care providers was generally adequate, but primary care doctors and nurses were narrowly trained and the scope and quality of their care was generally poor. Their main responsibility was to triage patients and refer them to the proper specialists. For example, pediatricians were required to refer children to seven different specialists and to do 11 different lab tests before granting them medical clearance for kindergarten. Internists (therapists) and gynecologists still do not treat patients with minor emergencies (lacerations, abscesses, nasal bleeding), sexually transmitted infections, depression, or many other common problems. A multitude of regulations governing the scope of practice required primary care doctors to refer over half of their patients to narrow specialists.

Another problem was that Kyrgyzstan has too many hospitals and inefficient systems for administering and financing tertiary care. Also, in the capital city the hospitals are divided by specialty (eg. Cardiology Institute, Surgery Hospital, Eye Hospital). The hospitals are over utilized, with the annual number of admissions nearing ¼ of the country's population and the average length of stay still exceeding 12 days. Key stakeholders concluded that this emphasis on tertiary care was too costly and not very effective. Consequently, Project Manas includes major reforms to "rationalize" tertiary care and to improve financial and administrative structures.

Given the reality of dwindling health care resources and poor health outcomes, the main goals of the Manas Health Reform Project have been to decrease the cost and to improve the quality of the health care provided in Kyrgyzstan. This report focuses on STLI's role within the Manas Health Reform Project - namely, to help introduce the specialty of FM as a means of improving the quality of primary health care and thereby improving the cost effectiveness of the health care system as a whole.

STLI, the MOH, the Kyrgyz State Institute for Continuing Medical Education (KSICME), USAID, Abt Associates, the World Bank, and the Kyrgyz State Medical Academy (KSMA), are introducing the specialty of FM throughout the country of Kyrgyzstan, and on a more limited basis in the surrounding Central Asian Republics. This eight-year project is using a combination of short-term and long-term FM training programs.

<u>Short-term "temporary" programs</u>

1. Training of trainers (TOT) programs for nurses and doctors using a one-year curriculum to produce FM trainers (1997-2004)

Graduates to date:

From Kyrgyzstan: 63 doctor trainers and 69 nurse trainers
From other Central Asian Republics: 9 doctors and 7 nurses

2. Retraining programs for about 2500 doctors and 3500 using a four-month curriculum for doctors and two-month curriculum for nurses to prepare them to work in "family group practices" (FGPs – see below). (1997-2005)

Graduates to date:

From Kyrgyzstan: 1787 "FGP" doctors and 2259 "FGP" nurses.

3. Publication of FM training materials in Russian, especially for nurses.

Long-term "permanent" programs (started in 2001)

1. National FM postgraduate residency program using a two-year curriculum for about 50 FM residents per year.

2. Continuing medical education for graduates of all the programs above.

3. Continuous quality improvement programs for the primary health care practices (FGPs)

Health Care Delivery System Restructuring

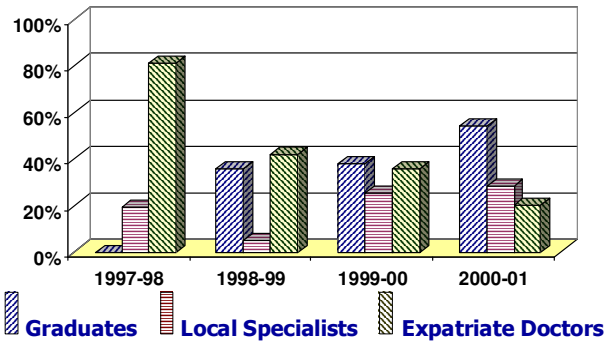
In order to understand these training programs, one must know about some key elements of the health care delivery restructuring that is also a part of "Project Manas". In the Soviet system, primary care was mostly delivered within government polyclinics, which were divided into many departments according to medical specialty. This highly compartmentalized structure has now been replaced by the concept of "Family Group Practices" (FGPs). These are groups of 3-8 doctors from the three main primary care specialties (internal medicine/therapy, pediatrics, and obstetrics/gynecology), along with nurses and other staff. These new FGPs share a common patient population and capitated financing. The FGP's are designed to allow for cross training between primary care specialists as a means of supplementing the four-month retraining course mentioned above. The FGP concept is seen as a transitional structure, which will allow for existing internists, pediatricians and gynecologists to broaden their clinical practices to include patients of all ages and both sexes. This interim system of primary care will allow time for the undergraduate and postgraduate medical education systems to produce doctors and nurses who have broad primary care training from the start.

Facilities and Administration

In order to accomplish the retraining of large numbers of FGP doctors and nurses throughout the country, we initially established family medicine training centers (FMTCs) in two government polyclinics, one in the rural oblast (state) of Issyk-kul and one in the capital city of Bishkek. In 1998, we opened another FMTC at the national medical school (KSMA), where we taught most of the teachers in their newly established FM Department. We recruited and trained new FM trainers from all of the seven oblasts (states). By 2002, we had established a FMTC in every oblast. Now the TOT program graduates use these FMTCs as training bases for the retraining and continuing medical education programs. All the FMTC's are affiliated with the KSICME and are financed jointly by USAID and the Kyrgyz government. The foreign doctors and nurses from STLI still have an active role as consultants, but they are also intentionally delegating more and more of their roles to national staff, whom they have helped to train and whom they continue to mentor, as reflected below:

Working Our Way Out of a Job

Distribution of Lectures



The focus on teaching has allowed for the development of long-term personal and professional relationships between the STLI volunteers and the new leaders of FM in Kyrgyzstan. In our everyday work, ethical or spiritual issues periodically arise and result in interesting discussions. Since this is a government project, the STLI personnel are careful about how much they share regarding spiritual issues in the FMTC setting. However, out of the office after hours, the STLI personnel are free to share openly with those who express spiritual interest. While only a small proportion of the local staff have become believers, the doctors and nurses with STLI are hopeful that by mentoring their local colleagues, they will have a long-term impact not only on these individuals, but also on the health care system. STLI volunteers hope to increase the level of integrity and compassion within the medical system by modeling these values in their everyday work and by helping to implement health care reforms, which promote these values.

The spiritual impact of the FM training project has not been limited only to outreach to FM colleagues. All the STLI medical volunteers are involved with local churches and have many other relationships with nationals. Several of the STLI workers have been helped to establish fellowship groups for a wide variety of local medical workers who have become believers. Some STLI volunteers have been involved in a church clinic.

Because of the very broad scope of this project, it will be many years before its full impact will be evident. Implementing the principles of family medicine involves a major paradigm shift for the doctors, nurses, other medical staff, and the government health care system. Changing clinical reasoning, medical practice and the legal and policy framework for medical care requires many years. Nonetheless, there are some initial signs of a positive impact related to the health reform process in general, and to family medicine training specifically. Most of the documented impact so far consists of intermediate indicators of improvement. Both informal and structured evaluations of the new FM trainers have shown that the breadth of their clinic knowledge and skills has improved. For instance, before the TOT program, none of the doctors were able to us an otoscope or ophthalmascope, whereas now they all can do that. Objective Structured Clinical Examinations (OSCE) done this year, however, showed that some of these new trainers still have some significant weaknesses in their clinical reasoning skills. Written exams of the newly retrained FGP

doctors and nurses at the end of their retraining courses have shown significant increases in the breadth and depth of their theoretical knowledge. A more formal evaluation of their clinical skills and everyday practice habits is underway, but those results are not yet available. The actual effect of the initial four-month retraining course on clinical outcomes may be limited, given the fact that the course included a lot of didactic training and was only four months long. Also, in some areas of the country, reform of the legal and policy framework and health care financing have lagged behind the clinical training process, making it difficult for the doctors and nurses to quickly apply what they were learning. Hopefully, the new continuing education system will address persisting deficiencies by building further upon the initial foundation laid by the retraining program.

At this point, hard data regarding the possible impact of the health care reforms on health outcomes of the population are limited. One very encouraging statistic, though, is that the infant mortality rate has dropped most dramatically in the Issyk-kul Oblast, where the heath reform first started. In 1997, when the retraining of FGP doctors first started in this oblast, it had the highest infant mortality rate in the country (31/1000). By the time all the FGP doctors in that oblast had finished their retraining course in 2000, the oblast's infant mortality rate had fallen to the lowest level in the whole country (18/1000). It is difficult to prove whether this dramatic decline is due to the health reform, but it appears likely, since other oblasts, which had not yet started the reform process, did not have a similar improvement.

The keys to the initial success of this project are mirrored in the basic principles of Family Medicine: coordination of care, comprehensiveness of care, continuity of care, and care within the context of the community and family.

Coordination: Collaboration has enabled this project to have a national and regional scope that hopefully will have a lasting impact on the primary health care in the Central Asian Republics. STLI became involved at the invitation of the MOH and has continued to coordinate closely with them. STLI also subcontracted with Abt Associates, an American consulting firm, on contracts with the World Bank and USAID. This has provided both improved coordination and also adequate funding to establish a national network of training centers and to carry out training on a national and regional scale.

Comprehensiveness: Health reforms must be broad based in order to be successful. The benefits of clinical training of health personnel can only be realized if the newly trained personnel are able to implement what they learn. In Kyrgyzstan, this has required a restructuring of the health care delivery system, dramatically changing health care financing, revising much of the legal and policy framework of health care system, and reeducation the population regarding their rights and responsibilities in the new health care system. We have seen that in the parts of the country where these comprehensive changes have lagged behind the clinical training, the doctors and nurses do not change their clinical practices. On the contrary, where financial incentives and the administrative structures have changed the most, newly retrained doctors and nurses use their new knowledge and skills in innovative ways.

Continuity: Having a team of long-term medical and administrative personnel working with STLI has been a real key. Starting with a team of 2 doctors and 1 nurse, the group soon grew to 5 long-term doctors and 2 long-term nurses. This medical team has been greatly assisted by stable administrative personnel within STLI and the organizations that supply volunteers to STLI. Also, many short-term volunteers have assisted STLI over the years,

but they can only be used effectively with the guidance of the long-term personnel. Fortunately, there has also been fairly good continuity within the MOH and Abt Associates during the first 6 years of this project.

Context: It has been clear from the start that Western models of FM or General Practice would have to be adapted to the medical context of the former Soviet Union. For instance, the very broad scope of care of American family doctors was not appropriate for the new FGP doctors in Kyrgyzstan. Together, the STLI team and their national colleagues have gradually developed a FM model that seems useful for CIS countries.

Ideally, it would have been good to build in a more continuous process of evaluation from the start of the project. Frankly, initially the STLI team was so busy with the day-to-day demands of designing and implementing the family medicine training programs that they did not develop an effective internal quality improvement process. In the past couple years they have been addressing this oversight, but it would have been more effective to develop a monitoring and evaluation system from the start.

The many administrative demands of such a large project have had other negative consequences, as well. While the breadth and depth of the project have allowed the STLI staff to develop many relationships, often they do not have time to deepen the relationships a fully as they would like too.

The main ongoing challenge for the STLI volunteers is to responsibly work their way out of their jobs and to leave behind a sustainable and reproducible FM training system. The dire economic situation in the region and strained interpersonal dynamics between various local colleagues make this a big challenge. The new family medical trainers have unique training, so it will be difficult for the government to keep them from leaving for higher paying jobs. Currently, the official salary for teachers in government medical education institutions is only around $20/month. For now, the FM teachers are receiving gradually decreasing salaries from USAID. The local FM teachers have just formed their own NGO, which hopefully will help to allow them to supplement their low government salaries in the future. The business side of medical education is very new to them, however, and it will be a big challenge for them to survive financially for the long term. Hopefully, further training and mentoring in medical management and leadership will help the local staff meet this challenge successfully.