

Reforming Medical Education in Kazakhstan

AIHA's USAID-funded Central Asia Medical Education Partnership Helps Lay Strong Foundation for Health Systems Reform in Kazakhstan, Other Nations in the Region

After the demise of the Soviet Union in 1991, Kazakhstan was one of the countries in the region that advanced to a democratic, socially-oriented state with a market economy. Although the country has enjoyed steady economic growth due to rich deposits of oil and natural gas, it has struggled with one of the most important prerequisites to continued economic development and social viability—reforming its national healthcare system.

The difficulties this Central Asian nation of 15.2 million inhabitants has faced in this regard stem from a long-term underinvestment in healthcare and related infrastructure under the Soviet regime coupled with the collapse of the formerly centralized medical education system through the region, which was replaced with national models that varied greatly in structure, content, language, and duration of instruction at both the undergraduate and post-graduate levels. In an age of rapid globalization, however, these highly specific and individualized national programs have resulted in growing international concerns about quality assurance and the comparability of diplomas across borders.

Planting the Seeds of Region-wide Cooperation and Medical Education Reform

Since it began in 1992 to facilitate health systems reform in Central Europe and the former Soviet Union, the American International Health Alliance (AIHA) has operated under the premise that improvements in the quality of medical care could not be sustained without dramatic changes in medical education. In September 2000, AIHA convened a meeting of senior educators representing various medical schools in Central Asia with the goal of forming a working group committed to supporting healthcare reform through workforce development. As a result, the Central Asia Region Council of Rectors (COR) was created to develop region-wide medical education standards ranging from admissions and licensing criteria to curriculum



During their visit to Tampa University in Florida, Aikan Akanov, first vice minister of health, and Nurgul Khamzina, head of education, research, and human resources at the Ministry of Health, met with Robert M. Daugherty, former vice president and dean of the College of Medicine at the University of Florida Health Sciences Center, to discuss the role of deans and rectors as agents of policy change in medical education. (Photo courtesy of Kathleen Conaboy)

development and continuing education. This marked the first steps toward medical education reform in Kazakhstan.

With the overarching goal of building regional capacity to produce high-quality medical graduates capable of meeting the healthcare needs of their populations, AIHA—with support from the United States Agency for International Development (USAID), the Academy for Educational Development, and the ZdravReform Program—created a partnership of seven Central Asian medical institutions that would collaborate with one another, and with faculty at the University of South Florida Health Sciences Center (USFHSC).

According to Kathleen Conaboy, USFHSC associate vice president for organizational development and US coordinator of the regional medical education partnership, the collaboration was built around the concept of peer networks similar to that of special interest groups nurtured by the Association of American Medical Colleges.

"Reform of medical education is a complicated and long-term process. Individual faculty have to be inspired by access to new ideas and models; these individuals also need to find like-minded peers because reform efforts must have the strength of multiple advocates to be effective. At the institutional level, rectors have to be visionary and persuasive, and they need the authority and the resources to implement change. At the governmental level, reform of medical education must be given priority status and priority funding," Conaboy explains, stressing, "None of these tasks is simple to accomplish. The issues are complex and the challenges are monumental. Everyone must be committed to hard work, sustained over a long period of time."

Since 2003, AIHA and its US partners have worked with the COR and other key policymakers in Central Asia, exposing them to both American and international experiences in medical education. With the rectors on the partnership steering committee, the vice rectors of the participating academies have been appointed to individual groups focusing on topics such as education, student affairs and admissions, research, and business and planning. Each group developed a three-year strategic action plan that features ways of improving a number of prioritized issues, including curriculum design and implementation, faculty pedagogical skills, building research capacity, enhancing clinical skills training, standardized testing of knowledge and clinical skills, and developing information literacy among faculty and students.



Ensuring Long-term Sustainability by Nurturing Local Ownership

At the Association of American Medical Colleges in Washington, Joseph A. Keyes, senior vice president and general counsel of AAMC, explains the organization's structure and functions to Akhanov and Khamzina. (Photo courtesy of Kathleen Conaboy)

While the funding from AIHA was vital to keeping the medical education reform project alive, the goal has always been to shift ownership and responsibility for change to national educators and governments. This process began in earnest in October 2004 when the AIHA partnership and COR sponsored a Faculty Development Workshop in Astana.

"Because the meeting was held in Kazakhstan's capital, representatives of the Kazakh Ministry of Health attended and learned about worldwide trends and prospects in medical education reform through various presentations made by the US faculty and officials from the World Health Organization (WHO)," says Zhamilya Nugmanova, AIHA regional director for Central Asia. At that time, the USFHSC partners attended a meeting of the Ministry's reform committee, during which they discussed a number of issues previously prioritized by rectors of the medical institutions participating in the partnership.

As a result, the Prime Minister of Kazakhstan acknowledged the need for medical education reform as a prerequisite for assuring the quality of medical care in the country and invited Nugmanova to join the Ministry of Health task force charged with developing the medical education reform concept and implementation plan. Through this participation in the task force, AIHA and its US partners have alerted members to the fact that medical education reform is not just about restructuring medical schools and their departments or about changing teaching hours. Rather, it involves establishing competency-based education that facilitates teaching and the acquisition of knowledge and skills, as well as the development of appropriate attitudes. The resulting perceptual changes were further reinforced by study tours designed to help senior health officials develop an understanding of US medical and nursing education models.

Two key Kazakh policymakers—Aikan Akanov, first vice minister of health, and Nurgul Khamzina, head of education, research, and human resources at the Ministry of Health—traveled to the United States twice in 2005 as part of these study tours. They visited the Association of American Medical Colleges (AAMC) to learn about the standardized admissions process, the role of government in medical education, and other issues related to the

organizational approaches to healthcare, such as work-force planning. Other organizations, such as the Liaison Committee on Medical Education, the National Board of Medical Examiners, the American Board of Internal Medicine, and the Nursing College of University of Minnesota, helped them to better understand the accreditation process; how standardized tests are developed, administered, and scored; the role of licensure; issues related to specialty certification and professionalism in medicine; and different issues of nursing education.

"These trips provided us with a clear understanding of the Western medical education model and significantly accelerated its introduction in Kazakhstan," Akanov asserts, noting that upon returning to Kazakhstan, he and Khamzina worked closely with AIHA's Nugmanova to write and publish several articles, including "Medical Education in the US-Experience for Kazakhstan," and "Nursing Education in Kazakhstan," which detailed recommendations for medical education reform based on what they had seen in the United States.

A New Medical Education Model Emerges in Kazakhstan

The model of medical education proposed in Kazakhstan encompasses a number of changes that will help the country better align itself with international standards, including adopting a competency-based education system, developing curricula that incorporates evidence-based practice and problem-based education, and ensuring that medical and nursing students acquire critical practical skills through early exposure to patient care. Other key elements of the model are adoption of a multidisciplinary approach to education; implementation of standardized testing and life-long professional development, and the establishment of a national clinical skills training and testing center. In addition, objective structured clinical examinations will be instituted.



The plan also sets forth plans for developing a funding mechanism for medical schools that is not dependent on the number of students enrolled, a database system that supports an independent accreditation process, and a rational physician/nurse ratio as a means to reduce health professionals training expenses. And, nursing will become a totally independent educational track—a sharp contrast to the old approach in which nurses and physicians are trained using the same curriculum for the first two years of their studies. The model also advocates three levels

After the medical education concept was approved by the Council of Ministers, faculty of leading medical institutions in Central Asia, ministry of health officials, representative of ZdravPlus, and the USFHSC partners discuss an action plan for implementing the concept. (Photo courtesy of Saltanat Yegeubaeva)

of education consisting of basic or undergraduate medical education, post-graduate or residency training, and continuous professional development.

A detailed description of the model has been distributed to medical academies and ministries in Kazakhstan and other Central Asian countries, serving as a powerful incentive for the development of the medical education reform concept. According to Akanov, the proposed concept was discussed with experts from the World Federation for Medical Education (WFME), WHO, American partners from the University of South Florida, and Ministry of Health officials. On February 21, 2006 the concept was presented to the Council of Ministers of Kazakhstan and was approved by the government for nationwide implementation effective in January 2007.

"With such a model in place, Kazakhstan will be able to educate competitive specialists capable of delivering high-standard medical care and ensuring patient safety," Khamzina points out, stressing that the goal is to bring the country's medical education in line with international standards by constantly reexamining the process and making improvements in both medical qualifications and in patient outcomes.



Healthcare authorities and representatives of medical universities in Central Asia gathered in Astana for the medical education reform concept accreditation meeting. (Photo courtesy of Saltanat Yegeubaeva)

The task at hand is to prepare the foundation for next year's positive changes, both Khamzina and Akanov admit, and this is what the Ministry of Health is currently striving to do. In particular, Ministry representatives are building on the contacts they made through the partnership, working with professionals at the National Board of Medical Examiners and other organizations to develop standardized tests and a knowledge evaluation licensure procedure. In addition, negotiations are in place with WFME specialist Leif Christensen, who was invited by AIHA to

help with a review of the European Credit Transfer System at a recent workshop on the structure of the medical curriculum held in February.

Even as Kazakhstan moves forward with its medical education reform plans, the strong bonds of professional collaboration formed through the partnership continue on. The Ministry of Health intends to set up several national clinical skills assessment centers to be used in both undergraduate medical education and licensing and has requested further assistance from the US partners in planning and designing these institutions.

"The partnership is fortunate because we have the support of USF's medical faculty and administration, and we have collaborators at the leading international organizations working on medical education reform throughout the world," Conaboy points out, concluding, "We don't have to invent anything new in Central Asia; our challenge is to take the world's best ideas and modify them to fit the needs in the region. Medicine is a wonderful and unique fraternity—everyone who has come to Kazakhstan and other countries in the region to help with the project wants us to succeed and will help us do so."