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March 2006

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Partner News



New PMTCT Training Center in Temirtau Opens its Doors to Fight Against Pediatric HIV in Central Asia

Although the HIV/AIDS epidemic in Kazakhstan is still in its early stages, AIHA has for several years been working closely with the country to help develop strategies capable of assuring the health and wellbeing of the nation's future generations. The February 6 opening of a regional training center for the prevention of mother-to-child transmission of HIV (PMTCT) in the Kazakh city of Temirtau brought this Central Asian nation one step closer to its goal of stemming the rising tide of the HIV epidemic before it spirals out of control.

Located at the Temirtau City Maternity House, the new center will provide PMTCT training services to healthcare practitioners and allied professionals from Kazakhstan and other countries in Central Asia. The regional training center is equipped with computers, office equipment, and various training aids. It will draw on the skills and experience of national experts from Almaty, Karaganda, Pavlodar, and Temirtau who have participated in numerous PMTCT trainings sponsored by AIHA and now will disseminate their knowledge to other specialists in the region.



During the opening ceremony, Saule Amanzholova, director of the Temirtau City Maternity House, briefs local journalists on the PMTCT program and its objectives. (Photo: Pavel Guliyayev)

The opening ceremony was followed by the initiation of a PMTCT training course attended by 25 senior faculty members representing neonatology, anesthesiology, obstetrics, gynecology, and pediatrics departments from medical schools throughout Kazakhstan. The program included instruction in the WHO/CDC PMTCT Generic Training Package, which has been adapted by AIHA to reflect national policies, country-specific epidemiological data on HIV/AIDS, and Kazakhstan's national protocols on HIV. Other topics covered were PMTCT for ob/gyns and voluntary counseling and testing.

According to AIHA Program Coordinator for Central Asia Bauyrzhan Amirov, trainees demonstrated a keen interest in the workshop's content and eagerly participated in all activities and assignments. As a result of the training, participant knowledge about PMTCT issues increased by 64 percent when pre- and post-tests were compared.



Workshop participants listen to a presentation on methods of HIV diagnosis. (Photo: Pavel Guliyayev)

Participants cited the use of antiretroviral therapy to prevent vertical transmission, prevention of HIV/AIDS in the workplace, and discrimination against HIV-positive patients as some of the most important topics that were discussed during the workshop. Nurila Maltabarova, a professor with the Department of Anesthesiology and Resuscitation at the Kazakh State Medical Academy, explained that even though the rate of HIV cases in Kazakhstan is low, clinicians can benefit greatly from knowing more about the virus and how to protect both themselves and their patients from its

spread. This knowledge will benefit people living with HIV/AIDS as well because it will help lessen the stigma and discrimination they face, allowing them easier access to healthcare and social support services. "We want to introduce these topics into the training curriculum to help our students be prepared to respond appropriately to the problem when and if they face it," she says.

In this connection, Maltabarova underscored the value of the wide range of educational materials on PMTCT that all workshop participants received and will be able to share with students and faculty at their respective institutions upon

their return. Moreover, the Medical Academy she represents has plans to incorporate a PMTCT module into the training curriculum for all specialists who will be working in the delivery room, including ob/gyns, surgeons, and anesthesiologists, among others.

"Knowledge is a key strength of any specialist, but in medicine it is critically important because human lives hang in the balance," Maltabarova concludes, stressing that the ability of future doctors to effectively prevent mother-to-child transmission of HIV is a particularly valuable strategy; it stands guard over the health of the most important citizens of the country—the children.



HIV Laboratory Training in Russia Focuses on Quality Control Procedures

In virtually every field of medicine, clinicians depend on accurate laboratory results to determine the best treatment regimen for each patient and help ensure positive outcomes. The precision of laboratory tests is especially important for patients with HIV/AIDS; for them, a laboratory mistake can mean the difference between life and death. Currently home to more than 1 million people living with HIV/AIDS (PLWHA), Russia is in the midst of initiating wide-scale antiretroviral treatment to patients who need it. As a result, demand for accurate, timely laboratory testing has significantly increased.

In response to Russia's need to upgrade current laboratory practices and procedures as a means to improve the quality of treatment and care available to PLWHA, AIHA—with financial support from USAID and in collaboration with University Research Co. LLC (URC)—hosted a training course on laboratory diagnostics in HIV/AIDS February 6-10 in Saratov. More than 20 technicians and other professionals from HIV laboratories at AIHA's HIV/AIDS care and treatment partnerships in Orenburg, Saratov, St. Petersburg, and Togliatti attended the event. Lab workers from Chechnya, Irkutsk, and Krasnodar also attended thanks to support from the World Health Organization (WHO).



Workshop trainer Galina Tsyganova, who is a lab specialist with the PCR Department at Moscow's Research Institute of Epidemiology, performs a master PCR test while Vera Vodneva, lab technician from Irkutsk AIDS Center, and Genadyi Gladiilin, head of the Chair of Clinical Laboratory Diagnostics at the Saratov State Medical University, observe the procedure. (Photo courtesy of Elena Vovc)

During the five-day training, participants learned some of the most advanced methods of laboratory diagnostics used to monitor HIV/AIDS, various co-infections, and the effectiveness of antiretroviral therapy. Other topics covered included issues related to laboratory quality assurance and quality control; the proper use of personal protective equipment and biologic safety cabinets; and diagnostic methods such as flow cytometry for measuring CD-4 counts and polymerase chain reaction (PCR) testing to determine viral load. In addition, sessions focused on methods of interpretation of the Western Blot assay for HIV antibodies, the selection and handling of specimens for analysis, and the testing and reporting of lab results to better manage HIV and common opportunistic infections, including tuberculosis.

Harvey George, director of diagnostic laboratories at the Massachusetts State Laboratory Institute and a member of the Association of Public Health Laboratories (APHL), joined leading Russian experts from the Federal AIDS Center and Federal Research Institute of Epidemiology as faculty for the workshop. The curriculum used for the training was developed by the Kiev-based Regional Knowledge Hub for the Care and Treatment of HIV/AIDS in Eurasia in collaboration with APHL and the Federal AIDS Center. It is based on the latest HIV laboratory services protocols issued by APHL, WHO, and the US National Institute of Health and Centers for Disease Control and Prevention.



Workshop participants attend a session on quality control procedures. (Photo courtesy of Elena Vovc)

According to Tatiana Logunova, head of the Saratov AIDS Center laboratory, the training elucidated the most important issues that lab workers need to know to operate accurately and efficiently. "Especially important for us were issues related to the standardization of lab procedures and quality control," she says explaining that, although these topics are fundamental in assuring correct testing performance and results, they are only cursorily covered by the basic courses currently provided at medical education institutions in the region.

Noting that approximately 120 patients will soon start receiving antiretroviral therapy in Saratov, Logunova acknowledged that for this therapy to be effective, the laboratory must provide timely diagnosis of HIV and its associated pathologies while at the same time monitoring treatment compliance, drug resistance, and the efficacy of treatment antiretroviral regimens. To do this effectively, she points out, a laboratory must have in place a clear organizational structure, standardized methods, quality control and follow-up programs, as well as working equipment. "All these issues were discussed in-depth at this last workshop, and for us that was really helpful," she concludes, saying that the skills she and her colleagues gained by attending the workshop will be an important building block supporting the quality of this endeavor.



Guria/La Crosse Partnership Brings Primary Care and Community Mobilization to Rural Region of Georgia

The broken windows of the Ozurgetti District Polyclinic (ODP) in Guria are reminiscent of an orphan's eyes, full of desperation and hope for a better future. They also symbolize the state of the local healthcare system that for many years has been undermined by chronic underinvestment. "Such was our reality for the last decade," says Levan Skamkochaishvili, head of the Guria Healthcare Administration, "but now we finally feel that the help is coming and that we're making steady steps toward dramatic changes for the better." He stresses that due to AIHA's partnership program, the Guria region is receiving substantial support for professional education and the development of modern healthcare programs that address the healthcare needs of its 145,000 inhabitants. The majority of these people have lived below the poverty line for many years—a factor that has contributed to the significant deterioration of the region's health indicators and to the rise of harmful behaviors and unhealthy

lifestyles over the past decade or more.

A survey conducted by the Guria/La Crosse (Wisconsin) partners at regional high schools has revealed some of the negative consequences of this long-term neglect of health education programs. A prime example is the fact that some 40 percent of the students surveyed have experimented with tobacco and 15 percent of children between the ages of 12 and 17 smoke cigarettes on a regular basis.

In seeking ways to remedy the situation with educational programs, several measures were introduced in 2005. One of them was a series of antitobacco educational sessions provided to 475 school students by trained nursing staff. The sessions received positive feedback from both the students and teachers and provided a basis for the expansion of the program throughout the Guria region.



During the health fair at ODP, a local pensioner receives counseling on high blood pressure management. (Photo courtesy of Sandra McCormick)

Another activity designed to educate and empower the local population was a health fair conducted by the partners on October 1 in the town of Ozurgeti. This event attracted approximately 300 citizens from Ozurgeti and adjacent villages, who came to take advantage of the wide range of clinical services being offered free of charge. Blood pressure screening and blood glucose monitoring were administered and specialists were on hand to share information about cervical and breast cancer, sexually transmitted infections, pediatric care, reproductive health, tuberculosis, and malaria. With a primary healthcare consultation costing approximately \$2 per person and the average monthly salary in Georgia around \$20, the free information and services offered at the health fair were accepted by the local population with gratitude.



At the new training center, Mary Anderson (far right), a nursing consultant with the La Crosse World Health Services Inc., meets with nurses from different institutions in Guria to discuss the nursing curriculum. (Photo: Vira Illiash)

To sustain long-term changes in the primary healthcare system in Guria, the partners opened a newly renovated and equipped training center at ODP that will be used for training and re-training clinicians from the region. At present, six physicians from Ozurgeti and nine physicians from rural ambulatories are working to complete a 940-hour course in family medicine. When they have finished they will be eligible—perhaps as early as April 2006—to take the state certification exam to become licensed family medicine practitioners. It is expected that the four highest achievers among these first trainees will then take a training-of-trainers course to become the trainers for

the rest of the physicians who practice family medicine in the Guria region. All the specialists who are presently undergoing training have been given family physicians bags, which include stethoscopes, laryngoscopes, and other equipment necessary to provide comprehensive diagnostic services.

"There are 44 rural ambulatories in the Guria region, and we still have a lot of work to do," Skamkochaishvili says, noting his hope that the partners are able to sustain the pace at which they are currently implementing positive changes to the healthcare delivery system. If so, he concludes, they will be able to produce many improvements in the health status of local citizens in the near future, which will contribute greatly to the overall success of primary healthcare reform in Georgia. Then, maybe the windows of local ambulatories will no longer reflect desperation, but rather will be illuminated with the light of change.



Hypertension Control Program in Georgia's Shida Kartli Region Demonstrates Simple Solutions to Complicated Problem, Partnership Begins Family Medicine Reform in the Region

High blood pressure is a major risk factor for the principal causes of mortality and disability in Georgia. Every year, 35 percent of all the healthcare expenses in this country of 4.7 million people are directed toward treatment of hypertension and its complications. The successful hypertension control program initiated in 2000 by AIHA's now-graduated Mtskheta-Mtianeti/Milwaukee (Wisconsin) partnership proved that a combination of proactive treatment based on standardized methods and continuous training of medical professionals coupled with lifestyle education, periodic monitoring, and the provision of free medication to patients, can effectively control hypertension even in resource-limited primary healthcare settings. The success of the model is borne out by its results—since the beginning of the program, there have been no deaths from hypertension and the rate of complications—including those requiring hospitalization—has been significantly decreased.

Beginning February 2005, this hypertension control program was introduced to the Kareli district in the Shida Kartli region under the aegis of the Gori/Milwaukee partnership. In preparation for launching the program, the US partners conducted hypertension management training for nine physicians of Kareli Polyclinic and sponsored a regional workshop that was attended by 50 physicians and nurses from various regional primary healthcare settings. The training sessions included video instruction and hands-on training in accurate blood pressure measurements. So far, 50 patients have been enrolled in this program and are receiving appropriate treatment and are being monitored closely. As a result, the average blood pressure level among these patients decreased by 36/17 mmHg.

Inspired by these impressive accomplishments, the Gori partners decided to replicate another model piloted in Mtskheta—the hypertension screening program. Gori's program was launched in September 2005 and has thus far enrolled 150 patients. Prior to the launch, the Gori District Polyclinic Ambulatory Unit was outfitted with all the necessary instruments and equipment, and staff were trained in comprehensive hypertension management. According to the partners, if these programs have resulted in such significant improvements in Mtskheta and Kareli, they will be able to do the same in Gori and hopefully all of Georgia.

With the goal of sustaining the positive changes and of ensuring continuous improvements in the overall health status of individuals and families in these communities by increasing their access to high-quality primary healthcare services, the partners are currently in negotiations with Georgia's Ministry of Health and Social Affairs, World Bank (WB), and the National Family Medicine

Training Centers (FMTCs) concerning the possibility of establishing a FMTC in Gori. Like the others, the center in Gori would train—and in some cases re-train—clinicians so they can practice family medicine. So far, five of these centers have been opened in Tbilisi under the national Family Medicine Training Program sponsored by the World Bank. A similar center was also established in Mtskheta with the support of a since-graduated AIHA partnership. Together, this network of FMTCs plays a critical role in re-training medical workers in the regions while improving the clinical capacities of the polyclinics and ambulatories. Paralleling the negotiations, the Gori/Milwaukee partnership began implementing a 940-hour training course in family medicine for physicians at Gori District Polyclinic's Ambulatory Unit. The curriculum of this 940-hour training course was developed by the British Department for International Development and the US partners from Milwaukee and had already been piloted through the FMTCs. After completion of this course, trainees will be eligible to take the state exam to become licensed family medicine practitioners, helping the region promote family medical practice by building a qualified cadre of family medicine specialists.

Regional News

New HIV/AIDS Awareness Campaign Urges Russian Citizens to "Stay Human"

Humanitarian foundations recently launched a nationwide mass media campaign in 10 regions of the Russian Federation targeted at reducing anti-HIV/AIDS prejudice. Using the slogan "HIV isn't transmitted via friendship," the "Stay Human" campaign seeks to reverse the rampant anti-HIV stigma common throughout Russia and put a stop to false rumors about how HIV can be contracted. The 3-month-long campaign, sponsored in part by the Russian Coordination Council for HIV-positive People, Focus-Media Foundation, and the local charitable foundation Delo, will rely on advertising to enhance public understanding of HIV.

Recent surveys show that the majority of Russians are grossly undereducated and misinformed about HIV transmission. In a recent *St. Petersburg Times* article, Yevgenia Alexeyeva of Focus-Media discussed this widespread public ignorance, explaining, "We conducted a poll in 10 regions of Russia just before the start of this campaign and were stunned by the results...70 percent of the poll's participants believe HIV can be transmitted through mosquito bites! Of course, this is not true."

Even more unsettling, Alexeyeva's research indicates that 56 percent of people believe HIV can be transmitted through kissing, 40 percent from coughing or sneezing, and more than half believe they can contract HIV merely by sharing an office or workplace with an HIV-positive person.

It is no wonder that such dangerous misconceptions about the nature of the HIV virus have given rise to unjustified fears involving the likelihood of contracting HIV and also generated a plethora of anti-HIV prejudice. So much, in fact, that many HIV-positive patients refuse to seek treatment for fear of being discriminated against. Even doctors and other medical professionals who are supposedly committed to helping their patients overcome the illness have bought into the anti-AIDS stigma, according to the *St. Petersburg Times*.

Alexander Volgin, head of the Northwestern branch of the Russian Coordination Council for HIV-positive People has had first-hand experience with this kind of treatment. "The degree of discrimination is horrendous, even the doctors who inform you about your diagnosis or give you therapy often act in the most unpleasant way," says Volgin. "It is not uncommon for an ambulance to refuse to help HIV-positive people. When they arrive on the scene and find out a patient has HIV, not all of them stay and provide medical assistance."

If the stigma is this pronounced among educated medical professionals, one can only wonder how bad it must be within the general public. "Scary newspaper articles and TV reports did much to reinforce the stigma," Alexander Rummyantsev, head of Delo, told the *St. Petersburg Times*. "It will take years to get rid of it, but I am against breaking stereotypes fast. Breaking [stereotypes] is always traumatic. It's best to keep a continued, widespread but non-aggressive campaign."

While Rummyantsev may be right, the Russian government has finally recognized the virus as a serious threat and pledged its support to tackling HIV/AIDS. Just last year, President Putin announced that the federal AIDS budget 20-30 times the size of last year's budget. HIV treatment and prevention funding has already increased from a pitiful \$4.5 million in 2004 to \$140 million in 2006.

This increase in funding is a direct response to the sharp rise in registered HIV cases throughout Russia. The *St. Petersburg Times* reports that the number of HIV cases per 100,000 people has increased from 121 in 2001 to 231 by the end of 2005. Furthermore, experts from the World Health Organization predict that over one third of the Russian population may die from the virus in the next 50 years. As of October 2005, 27,602 HIV cases have been registered in St. Petersburg alone since the virus was first recognized in Russia in 1987.

As HIV rates threaten to reach epidemic proportions, it is now more important than ever to target the public through education and awareness campaigns. Only through reducing stigma and encouraging infected people to seek help can Russia hope to curb the spread of HIV.

IOM Initiates New Campaign Targeting Human Trafficking

Bridging both Europe and Asia, Turkey has emerged as one of the major destination points for Central Asian women falling prey to human trafficking for sexual exploitation, according to the UN Office for the Coordination of Humanitarian Affairs' Integrated Regional Information Networks (*IRIN*). Citing a recent study conducted by the International Organization for Migration (IOM), *IRIN* detailed some key findings of "2005: Turkey, Trafficking and Trends," including the fact that illegal profits from human trafficking in Turkey exceed 1 billion US dollars each year.

In 2005, 469 people were identified as victims of trafficking in Turkey, however this is estimated to be just 10 percent of the actual number, according to *IRIN*. No men were reported as trafficked in 2005, although it is likely that men are also victims of trafficking on a lesser scale. The IOM provided repatriation assistance for 220 of these women, 17 percent of whom were from the Central Asian nations of Kazakhstan, Kyrgyzstan, Turkmenistan, and Uzbekistan.

Turkey is a top destination for trafficking because of its geographical proximity to key source countries and its reputation for being home to a plethora of well paying jobs, the report states. Many experts claim that Central Asia is a growing

area of origin for human trafficking. The problem is at its worst in Uzbekistan, which has the largest population in the region, followed by Tajikistan, Kyrgyzstan, and Kazakhstan, Katerina Badikova, an IOM trafficking officer in Almaty, Kazakhstan told *IRIN*. "Some estimate that more than 10,000 women each year are trafficked from the region, many against their will. There is trafficking of women, mainly to the Gulf states, but also to South Korea, Turkey, Greece, Western Europe, and countries in Southeast Asia, such as Thailand and Malaysia," she acknowledges.

Because one out of every three women trafficked to Turkey are mothers with children, the IOM has launched a new campaign targeted at raising public awareness about human trafficking and its impact on families—specifically women and children. The centerpiece of the campaign is a television advertisement featuring the slogan "Have You Seen My Mother," which is broadcast on national channels throughout Turkey. The ad features four children from the former Soviet Union in search of their mothers who have been trafficked to Turkey. The IOM is also launching a nationwide print campaign to further combat the issue.

Globally, more than 4 million people are trafficked each year in what has become a wholesale commercial enterprise generating as much as 12 billion dollars annually for criminal syndicates. Women, especially women with children, are prime targets for traffickers because many live in poverty and are desperate to make a better life for themselves and their families. Traffickers attempt to lure the poor and vulnerable with false promises of wealth and job security and many are kidnapped or taken against their will.

One of the biggest challenges to effectively addressing the problem of human trafficking is a lack of consistent research and concrete statistics. These impediments make it difficult to gauge the true extent of the problem, and thus more difficult to convince the public that human trafficking is a serious issue. The IOM campaign seeks to overcome these challenges by increasing public awareness and stepping up training of law enforcement officials, as well as providing medical, psychological, and direct assistance to trafficked individuals.

The United States is providing \$600,000 in funding for the IOM campaign, combined with \$100,000 in funding from the Turkish government. The Italian and Swedish governments also support IOM anti-trafficking programs.

Trafficking carries with it many dangerous and long-term health consequences, the IOM study reports. Post-traumatic stress disorder, anxiety, and depression are common mental side effects of trafficking, while contraction of sexually transmitted infections, damage to reproductive health organs, and exposure to violence and abuse are the most prevalent physical consequences. "Trafficking takes an enormous toll, not just on the women and girls who have been trafficked to Turkey, but on the children and families they are forced to leave behind," Marielle Sander Lindstrom, head of the IOM mission in Turkey, said in a statement released in conjunction with the study. "Families and communities alike are paying an enormous price."

Newly Released Studies Shine Light on the Nuances of HAART

Two new studies released in early 2006 indicate that continuous and early use of highly active antiretroviral therapy (HAART) can significantly increase chances of

survival and reduce the risk of treatment related side-effects for HIV-positive patients.

The first such study, conducted by the National Institutes of Health (NIH), indicates that those who undergo continuous treatment using antiretroviral therapy (ART) have higher chances of survival than patients who periodically interrupt their treatment. The results of the study came as a shock to both scientists and HIV patients alike who expressed hopes of finding that lifelong use of antiretroviral drugs is unnecessary and perhaps even harmful, according to the *Washington Post*. Instead, results concluded that 5.4 percent of those receiving episodic treatment died or developed serious complications, compared with only 3.6 percent of those receiving continuous treatment.

The study, "Strategic Management of Antiretroviral Therapy (SMART)," set out to determine which of two HIV treatment strategies would result in a greater overall benefit for patients. A total of 5,432 HIV-positive volunteer subjects from 318 clinical sites in 33 different countries were randomly assigned to one of two groups. Members of the first group relied on a "viral suppression" strategy, using ART continuously throughout the study, regardless of cell levels. The second group adhered to a "drug conservation" strategy in which ART was only started when a patient's CD4 count dropped below 250 cells per cubic milliliter (mm³). Patients were then taken off ARV when their CD4 levels exceeded 350 cells/mm³, according to NIH reports.

Enrollment for the study began in January 2002 and was abruptly halted last month when it became clear that those following the drug conservation strategy were at almost double the risk of experiencing disease progression. The average follow-up was conducted after approximately 15 months, at which time negative effects were already alarmingly apparent within the drug conservation group. What's more, these patients were also more likely to develop serious complications such as heart, liver, or kidney disease. These results directly conflicted with the hypotheses of many scientists, who predicted that episodic treatment would not only decrease the likelihood of side effects, but also that patients would develop less resistance to the drugs and thus have a greater variety of beneficial treatment options.

Yet, despite clear statistical evidence, many hesitate to accept the findings largely due to the fact that the study reached its conclusions in one quarter of the time originally expected. "I am not ready to throw out the concept of treatment interruptions. That may not be scientific or rational but I'm just not there, and I'm not alone," Claire Rappoport, who represented HIV patients on the SMART committee, told the *Washington Post*. Richard Jefferys, a leader of the Treatment Action Group, an AIDS activist organization, echoed Rappoport's sentiment. "Our concern is that this will be considered the end of any studies on treatment strategies. We think that would be premature...the assumption that people are going to be on therapy for the rest of their lives is not a practical assumption."

Indeed, one of the most frustrating aspects of ART has to do with the fact that continuous treatment is incredibly expensive, and thus highly impractical for large-scale implementation, especially in impoverished nations. Economic motivations provided a major impetus for testing the drug conservation strategy because this method would require less time, energy, and money spent on each individual patient and thus resources could reach much further.

Many of physicians themselves also expressed disappointment with the results of

the study, according to the *Washington Post* article. Dr. Mauro Schechter, head of the Brazilian study site, admitted, "We all wanted so much for it work. You do the studies to get the answer, it is not always the answer you like."

Study sites report that many SMART participants are reluctant to return to continuous treatment, even though SMART leaders have advised them to do so, the *Washington Post* reports. HIV patients had expressed hopes that the study would save them from lifelong dependency on ART and many refuse to abandon that hope too quickly.

Unfortunately, the \$73 million study did not confirm such findings, although it does represent an important step forward in global AIDS research. "SMART is one of the largest HIV/AIDS treatment trials ever conducted," NIAID Director Anthony S. Fauci. "The study reflects an extraordinary global collaboration among hundreds of dedicated AIDS clinicians and thousands of their patients, all of whom should be commended for their exceptional achievement in contributing to this pivotal HIV/AIDS treatment study."

Patients will no longer be assigned to either strategy, however researchers will continue to monitor them at least for one to two years, and perhaps even longer. Long-term effects on patients have yet to be determined and many patients and doctors are optimistic that prolonged study may shed further light on the issue, perhaps even altering the conclusion reached.

The second study, presented in early February at the 13th Conference on Retroviruses and Opportunistic Infections in Denver, Colorado, determined that implementing HAART early, while the patient's immune systems are relatively healthy, significantly lowers the risk of infections and toxic side effects, *Reuters* reports. While this study was based on a national sample and focused exclusively on HAART, these results—like those of the SMART study—highlight the importance of ART in fighting HIV.

The study analyzed the medical records of 2,304 HIV-positive patients using HAART in eight US cities between 1996 and 2005. Researchers focused on three common treatment-related side effects or toxicities—kidney failure, a type of nerve damage known as peripheral neuropathy, and a wasting condition known as lipoatrophy—in conducting their study.

Patients were split into five groups, depending on their CD4 counts. Typically, most patients are told to begin HAART only when CD4 counts fall below 200, however in this study some groups of patients started HAART with counts well above this range.

Surprisingly, results indicated that patients who began treatment at or above a 350 CD4 count were 60 percent less likely to develop kidney failure, 30 percent less likely to suffer peripheral neuropathy and 60 percent less likely to develop lipoatrophy than the patients who began treatment at the 200 CD4 levels, *Reuters* reports.

"Earlier was better in almost everything we looked at," Dr. Kenneth Lichtenstein of the University of Colorado Health Sciences Center said in the article. "If you stayed on treatment and started earlier, you had the best outcomes." According to Lichtenstein, these results came as a surprise to many of the researchers. "The intuitive thing to think is ... the longer you're on the drug, the greater the toxicity," he told *Science and Medicine*. "The surprise in our study is if you didn't

develop toxicity in the first six months to a year, your risk of toxicity went down, rather than up."

In the past, physicians have been reluctant to start their patients on HAART because there were so few strains of drugs available and they feared people might develop resistance to the drugs. Now, with four, soon to be five classifications of drugs available, Lichtenstein told Reuters that there is "no reason to delay HAART."

—All articles in this section were prepared by Barret Jefferds, freelance journalist

Workshops, Conferences, Opportunities and Grants

XVI International AIDS Conference

With the theme of Time to Deliver, AIDS 2006 will be one of the most important scientific gatherings in the fight against HIV/AIDS, as well as a unique opportunity for science, government, community, and leadership sectors from around the world to advance the collective response to the epidemic. Conference sessions and activities will be designed to engage all delegates in a dialogue about strategies to combat HIV/AIDS. The event will be held in Toronto, Canada, August 13-18, 2006. For more information, please go to: www.aids2006.org/

The 31st Annual Meeting of the International Urogynecological Association (IUGA)

Through workshops, lectures, and oral, poster, and video presentations, this year's meeting will provide an opportunity for medical specialists and scientists throughout the world to learn about new developments in urogynecology. The conference will be held in Athens, Greece, September 6-9, 2006. For more information, please, visit: www.iuga2006.com/

The 12th International Symposium on Viral Hepatitis and Liver Disease

The event will to be held in Paris, France, July 1-5, 2006, and will provide overview of all known viruses and possible new candidates involved in viral hepatitis at the basic, clinical, and therapeutic levels. It will also present a wealth of new information about HBV and HCV, including epidemiology, virology, diagnostic tests, chronic liver disease, hepatocellular carcinoma, liver failure, and transplantation, along with actual and prospective therapies and vaccines. Special attention will also be given to the fast progress of antiviral molecules and the ongoing battle against viral resistance, as well as such co-infections as Hepatitis and HIV. For more information, please see: www.isvhld2006.com/

The 2nd Basic and Clinical Immunogenomics Congress and the 3rd International Immunomics Congress

The BCII 2006 will bring together immunologists, bioinformaticians, researchers, clinicians, and engineers to present and discuss the latest developments in genomics, proteomics, bioinformatics, and instrumentation, and their application to basic and clinical immunology. This multidisciplinary meeting will ensure an exciting exchange of ideas and help bridge the gap between previously separated fields. It will take place in Budapest, Hungary, October 8-12, 2006. The last day for abstract submission is April 30, 2006. For more information, visit: www.bcii2006.org/

From Genomes to Protective Antigens: Designing Vaccines

GPADV 2006 is a new international conference that will focus on the developing activity surrounding opportunities for improved and novel vaccines through genomics and post-genomic technologies. The meeting will address all pathogens and vaccines, B and T cell approaches including human, veterinary, and plant infections, as well as cancer and reproduction. The conference will take place in Prague, Czech Republic, November 15-17, 2006. Closing date for oral abstract submissions is May 26; poster submissions will be accepted until September 2006. For more information, please go to:

www.meetingsmanagement.com/gpadv_2006

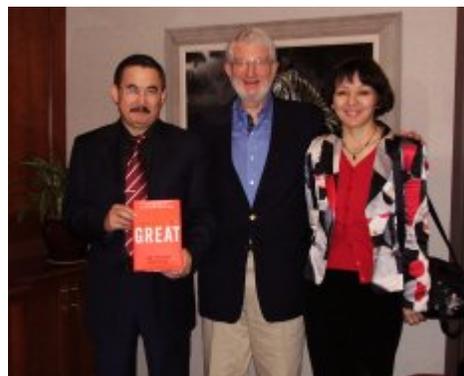
Features

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.



During their visit to Tampa University in Florida, Aikan Akanov, first vice minister

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

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)

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.



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)

Ensuring Long-term Sustainability by Nurturing Local Ownership

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 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.



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)

"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. 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.



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)

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."

Making a Woman's Dreams of Motherhood Come True

With Expert Care and Support, a High-risk Pregnancy Yields Joyous Results for a Family in Iasi, Romania

For 26-year-old Anna Ciofu, nothing is more important than family. But after six miscarriages in just three years, she was beginning to think that she might never have even one child. "It wasn't getting pregnant that was my problem, it was staying pregnant," she explains. "Each time, I would make it to the third or fourth month then the contractions would start and I would lose the baby. Even if I went to the hospital at the earliest signs of cramping, it seemed like nothing could be done to save the pregnancy."

It was during one of these trips to the hospital that Ciofu and her husband Bogdan first met Dr. Calin-Adrian Boeru, an ob/gyn at the Center for Reproductive Health and Family Planning in Iasi, a city of some 350,000 inhabitants located in eastern Romania. Affiliated with the Elena Doamna Hospital of Obstetrics and Gynecology, the Center offers primary care and specialized reproductive health services to women of all ages and is home to an AIHA partnership Women's Wellness Center.

Recalling how he first met Ciofu a little more than two years earlier, Boeru explains, "She came to the emergency room crying and afraid. I was struck by how devastated she was to have lost yet another pregnancy. I told her not to dwell on the past, rather to think of this as a new beginning. I told her that from that day on we would work together to discover what was causing these miscarriages, take care of the problem, and see her through to term."

Despite her anguish, Ciofu was hopeful. She agreed to follow the doctor's plan, which included taking oral contraceptives for a period of three months. "I wanted Anna to give her body enough time to truly recover from the trauma of all those miscarriages. During that time, we conducted a series of tests on Anna and her husband to determine if either of them had an infection or some other condition that could explain the situation," Boeru recounts. "We diagnosed Anna with an incompetent cervix—a condition that results in the early onset of contractions when the baby reaches a certain weight. That diagnosis helped us devise a plan for getting her through her next pregnancy."



After losing six pregnancies to a condition known as cervical incompetence, Anna Ciofu gave birth to a healthy daughter thanks to the care she received at the Iasi Women's Wellness Center. (Photo: Kathryn Utan)

This close partnership between physician and patient is far from commonplace in Iasi or any other city in Romania. Under the old Soviet-style system of healthcare, doctors didn't involve patients in the process. Instead, it was more likely for them to issue directives they expected to be followed, "no questions asked." As a member of the AIHA partnership linking the Iasi Center for Reproductive Health and Family Planning with Hennepin County Medical Center in Minneapolis, Minnesota, however, the center's staff has adopted a client-centered approach that is the hallmark of AIHA's Women's Wellness Center model. This means that patients are openly informed about their diagnosis and the various treatment options available to them. For Ciofu, it underscored the crucial role she had to play in preserving her pregnancy.

In anticipation of conceiving again, Boeru advised Ciofu to discontinue the birth control pills, eat a healthy diet, get plenty of rest, and try to let nature take its course. It didn't take long for her to become pregnant. "As soon as the doctor confirmed that I was pregnant, we started talking about what I would need to do to help ensure that I carried this baby to term. He explained that there could be complications and that while we would hope for the best, we would also need to be prepared for the worst," Ciofu says. And there were plenty of scares along the way, she admits.



Dr. Calin-Adrian Boeru checks on Anna's daughter, Bogdana, the day after he delivered her. His close supervision and expert care—along with the support and attention of many other clinicians at the Women's Wellness Center—led to a joyous end to a difficult pregnancy. (Photo: Kathryn Utan)

"At her first clinical exam, her cervix looked weak. I suspected that it wouldn't be able to sustain a healthy full-term pregnancy, so we decided to perform a surgical procedure to reinforce it with sutures," Boeru explains, noting that he told Ciofu she would have to restrict her activity and stay off her feet as much as possible or risk yet another miscarriage. "She promised she would stay home and rest, but after a few days of that she would go back to work at a local market. Sometimes when a patient is feeling better, she may not realize she still must be careful," he continues.

For Ciofu, the return to her normal routine caught up with her in her 27th week when she started having contractions. She had to be hospitalized for several weeks while Boeru and his

colleagues at the Center worked to stabilize her condition. "Although we knew it was possible for her baby to survive at that early stage, we wanted to keep her inside her mother's womb for as long as possible," Boeru explains. When she reached 32 weeks, Ciofu was allowed to go home in the evenings but for the remainder of her pregnancy she came back each day for tests and some "doctor enforced bed rest," Boeru says with a smile. "During this whole period we not only had to look after Anna's physical health, we also had to nurture her psychological health. She was terrified that she would lose the baby and under a great deal of emotional stress," he acknowledges.

Ciofu agrees. "After each miscarriage, I cannot begin to describe the emptiness and disappointment I felt. The last time was the worst of all because I made it almost five months before losing the baby. It was a little girl. I got to hold her for a few minutes and my heart was broken," she says, looking away to hide her tears.

But those tears didn't last long. Just a few hours later, Dr. Boeru told Ciofu—who was then at 38 weeks—that she would be taken to the delivery room for a Caesarean-section later that day. "All along, we told her that she would need to be prepared to deliver surgically. I didn't want to tell her too far in advance, though, because every time she got nervous these past few weeks she would start having contractions. This caused the baby's heart rate to jump sharply," he explains. "When I told her that today was her child's birthday, she looked at me with so much faith and confidence. That's why, for me, caring for patients isn't so much a job as a sacred duty," Boeru maintains.

The long, painful road Anna Ciofu traveled to get to that day yielded a joyful result—a healthy daughter she named Bogdana after the baby's father. Looking at her child with all the love in her heart, she shifted her gaze to Boeru and whispered "thank you."

—By Kathryn Utan, Supervisor, Editorial Services and Media Outreach

—Unless otherwise noted, all stories in this issue are written by AIHA Staff Writer Vira Illiash who is based in Kiev, Ukraine.