

Preventing Mother-to-Child Transmission of HIV in Kazakhstan

New Training Center Helps Ensure a Healthier Future for Central Asia's Children

Looking at Lena and Aleksandr playing contentedly with their three young children, you would never suspect that their story is any different from that of any other happy, healthy family. In most respects, it is not—they share the same joys and sorrows ... face the same challenges ... dream of a bright future for themselves and their children. What sets the family from Temirtau, Kazakhstan, apart is the fact that while Lena and Aleksandr are both HIV-positive, none of their children are.

Describing how terrified she was when she learned she was pregnant with her first child—a 3-year-old girl named Nastya—Lena recalls how her doctor at the Karaganda Oblast AIDS Center calmed her fears about passing HIV along to the baby she carried. “I was told about antiretroviral therapy and how it is used to prevent transmission of the virus from mother to child,” she says.

The happy outcome, of course, was a healthy baby free from HIV. “I was only afraid that first time,” Lena admits, first beaming at Nastya, then 2-year-old Daniil, and tiny Masha, who is not quite one yet. Just four or five years ago, things could have been much different—Lena’s chances of transmitting HIV to her children would have been 30 percent or greater.

Located in central Kazakhstan, Temirtau is a focal point of the country’s HIV/AIDS epidemic. After the collapse of the Soviet Union, the large metallurgical plant there was closed and, as a result, the majority of residents in this city of 150,000 lost their jobs. Poverty and unemployment served as catalysts for the emergence of a booming drug trade for cheap heroin from neighboring Afghanistan. Young people between the ages of 17 and 35 have borne the brunt of addiction and, consequently, the country’s burgeoning HIV/AIDS epidemic. As Lena’s

story reflects, women in their reproductive years now account for more than 35 percent of all new HIV infections in Karaganda Oblast, making a comprehensive strategy for the prevention of mother-to-child transmission (PMTCT) of HIV more urgent than ever before.

With one of the highest HIV infection rates in the country, Temirtau was selected as a pilot site for replication in Kazakhstan of AIHA’s highly successful PMTCT program first launched in 2000 in Odessa, Ukraine. With funding from USAID, experts from Odessa worked closely with their colleagues from Karaganda Oblast AIDS Center and the Municipal Maternity Hospital in Temirtau to enhance the knowledge and skills of the Kazakh practitioners and develop a core faculty capable of training others to prevent vertical transmission of HIV.

As a result of this collaboration, a regional PMTCT training center was opened in February 2006 at the Maternity Hospital.

Relying on the skill and experience of local specialists, this training center is helping build capacity among healthcare professionals in Kazakhstan and other nations in Central Asia to prevent vertical transmission of HIV. Training includes instruction in the WHO/CDC PMTCT Generic Training Package, which was adapted by AIHA to reflect national policies, country-specific epidemiological data on HIV/AIDS, and Kazakhstan’s national protocols on HIV prevention, care, and treatment. In addition, specialized curricula focus on PMTCT training for obstetricians and gynecologists and voluntary counseling and testing. And, because HIV/AIDS is a complex illness, training activities focus not only on obstetricians and gynecologists, but also midwives, pediatricians, neonatologists, anesthesiologists, general practitioners, and practitioners from women’s consultations to better ensure access to a continuum of high-quality care and services.



Marina Sorokina, an instructor with the AIHA-established PMTCT Training Center established at Municipal Maternity Hospital in Temirtau, leads a training session.

AIHA Success Stories



Professor Natalia Petrova lectures on the basics of HIV infection and strategies for preventing mother-to-child transmission for a group of healthcare professionals from Karaganda Oblast.

“Thanks to this program, we train more practitioners in HIV/AIDS prevention and treatment each month.”

—Natalya Petrova,
assistant professor of infectious diseases at
the Almaty Postgraduate Medical Institute

The PMTCT Training Center plays a critical role in Kazakhstan’s efforts to stem the spread of HIV by educating clinicians about the virus, prevention methods, and the importance of voluntary counseling and testing, particularly among pregnant women and those of reproductive age. This, in turn, helps reduce late detection of HIV infection among pregnant women and new cases of pediatric HIV—both significant problems in Kazakhstan, according to Olga Orlova, a pediatrician at the Karaganda Oblast AIDS Center.

Explaining that Kazakh legislation previously encouraged only that pregnant women from high-risk groups be tested for HIV, Orlova—who is also an instructor at the PMTCT Training Center in Temirtau—says, “HIV transcended high-risk groups such as injecting drug users and commercial sex workers long ago. The epidemic is now well established throughout our society, even among socially prosperous people.” The sad result, she acknowledges, is an increase in the number of children whose HIV is detected by their pediatricians.

“The law was amended in July 2005 to allow HIV testing of all women provided they consent to it, which means the clinician’s role must adapt accordingly. We must have the knowledge, skills, and attitude necessary to broach this sensitive, frightening subject and persuade women

to undergo testing. The PMTCT training courses emphasize this and are playing a decisive role in preventing vertical transmission in our country,” Orlova stresses.

During its first months in operation, the PMTCT Training Center in Temirtau hosted four training courses for senior faculty from the neonatology, anesthesiology, obstetrics, gynecology, and pediatrics departments of medical schools throughout Kazakhstan, as well as for obstetrician/gynecologists from maternity hospitals and specialists from primary healthcare institutions in Kazakhstan and Uzbekistan, according to Natalya Petrova, assistant professor of infectious diseases at the Almaty Postgraduate Medical Institute and one of Kazakhstan’s leading experts on HIV/AIDS.

“Thanks to this program, we train more practitioners in HIV/AIDS prevention and treatment each month,” says Petrova, who is also an instructor at the PMTCT Training Center in Temirtau. “Even though each trainee is working in his or her own field of expertise and therefore needs specialized training, they are all links in a single chain that can assure effective measures against mother-to-child transmission of HIV. We try to meet the needs of each participant while also providing the basic knowledge about HIV infection that all medical professionals

should possess, including issues of tolerance and sensitivity toward people living with HIV/AIDS,” she stresses.

Lena gave birth to all three of her children at the Municipal Maternity Hospital in Temirtau. Thanks to AIHA’s comprehensive, skills-based training program, staff there have the knowledge and experience necessary to provide compassionate, high-quality treatment, care, and support to HIV-positive pregnant women and their families. Aleksandr even got to take part in the birth of Masha, the couple’s youngest daughter, last year. Calling the experience one of the most memorable he has ever had, he concludes, “The people who work at the maternity hospital are true professionals. They are not afraid of patients like us and they do everything they can to ensure that children in our city are born healthy.”



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