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# SUCCESS STORY

## Strengthening Uzbekistan's Laboratory Services - the Cornerstone of Early Tuberculosis Detection

**USAID trains Uzbekistan's lab professionals to improve quality of TB testing**



Lola Sheralieva (far right) mentors colleagues at GeneXpert® lab training

*"I would not be where I am today without the skills received through USAID training. Lab services are the cornerstone of TB care and it feels great to deliver TB test results with guaranteed accuracy and on time; after all, we are dealing with human life."*

Lola Sheralieva

For anyone facing a possible tuberculosis (TB) diagnosis, quick and accurate test results provided by laboratory professional is crucial for early treatment and eventual recovery. Lola Sheralieva, a lab specialist at a TB clinic in Uzbekistan's Bukhara region, is one such lab expert whose professional skills have been advanced through USAID's TB Control Program

Since childhood, the Bukhara native has been passionate about microbiology. "The microscope was my favorite toy," she reflects, "and even though I started my professional career as a nurse, when an opportunity presented itself for me to work at a laboratory, I was eager to take it."

In 2010, when Sheralieva began work at the TB clinic, the lab was a dark and cramped space that didn't have the equipment necessary to diagnose TB. Specimens collected from patients had to be sent 600 km away to a central lab in the nation's capitol, Tashkent for testing. Results took as long as three months dangerously delaying treatment for patients who tested positive for TB. Not only did the delay jeopardize a patient's chance of a complete recovery, it also increased the chance of the disease spreading to family and community members.

Over the past year, Sheralieva's lab has been undergoing a dramatic transformation and is now a regional diagnostic powerhouse providing rapid and accurate TB test results in the Bukhara and Navoi regions. Located in a building newly constructed by the Government of Uzbekistan, the lab features state-of-the-art TB testing equipment that can not only provide the results of TB tests in just two hours but can also precisely identify what drugs will most effectively treat the strain of TB a patient has.

But equipment is only half the battle. Equally important is the assurance that lab technicians like Sheralieva have the skills and training necessary to provide high quality and accurate testing.

Since 2015, the USAID TB Control Program has trained nearly 200 lab technicians in advanced testing technologies and has provided much needed testing supplies to TB laboratories in Uzbekistan's Bukhara, Kashkadarya, Navoi, and Khorezm regions. Through extensive training

programs, master classes, and study tours in Uzbekistan and abroad, lab staff have advanced their skills in advanced molecular testing methods, and quality management.

“It is amazing how quickly my lab has improved its testing speed and accuracy. After all, accurate and timely diagnosis of TB is critical for a patient’s recovery,” Sheralieva reflects.

As Sheralieva also notes, “A perfect laboratory is a safe laboratory.” To ensure a safe work environment for staff and minimize the risks of specimen contamination, USAID has also provided training in infection control and biosafety. With the knowledge and skills gained through the training, lab technicians now have the confidence to implement facility-wide quality management systems and develop procedures to ensure lab operations with international biosafety and infection control requirements.

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