



## Developing an ART Patient Monitoring System in Kazakhstan



Yekaterina Bumburidi, the CAPACITY Project M&E Seconded Specialist (Photo: CAPACITY/Almaty Office)

### Electronic Monitoring Increases Quality of ART Provision

Medical management of HIV and AIDS patients is a long-term commitment. During a lifetime's course of clinical care and treatment, patients may undergo many different procedures, tests, and therapies; receive care from multiple providers; and experience various opportunistic infections, illnesses, and side effects related to the medicines. In order to ensure continuity and quality of care, it is essential that informative, complete, and systematic patient records be maintained. Patient records not only enable improved management of clinical care over the long term, but they also enable national AIDS leaders to evaluate the effectiveness of treatment programs across the population. In spite of increasing numbers of people living with HIV and AIDS patients in clinical care and receiving anti-retroviral therapy (ART) in Central Asian countries, a system for patient-level clinical monitoring of AIDS patients has not been developed.

In April 2006, the CAPACITY Project was asked to provide technical assistance to the Kazakhstan National AIDS Center to develop an electronic patient monitoring system to evaluate the effectiveness of ART in Kazakhstan. With technical assistance from CAPACITY, the National AIDS Center established a Technical Working Group (TWG) that developed goals and objectives for an electronic ART patient clinical monitoring and management system, protocols for data collection, including inputs and reports. Initially, the CAPACITY-seconded M&E specialist, Ekaterina Bumburidi, met with two international consultants from Holland and WHO to discuss the objectives and structure for a Kazakhstan system. She also visited Moscow to learn about a similar system. After several meetings, the TWG identified the main goal of the electronic system: to evaluate the individual and national impact of ART. The TWG then set the following objectives:

- 1) To monitor every patient who enrolls in ART, including eligibility and readiness to begin therapy, ART management and adherence, side effects, psychosocial response, development of opportunistic illnesses and side effects, and medical treatment over time; and
- 2) To monitor the ART Program, including availability and accessibility of ARVs, changes in viral load and CD4 count among patients on ART, duration of treatment with the first line drugs, survival time for patients on treatment, and mathematical models to estimate the risk of HIV transmission among people taking ARVs.

Ms. Bumburidi, in collaboration with staff from the National AIDS Center, began to use the paper-based forms developed by CAPACITY for data collection, including: 1) patient registration/ART registration; 2) laboratory monitoring of ART; and 3) monitoring medical visits and missed visits. Based on WHO guidelines, the team has also produced a data collection protocol for the electronic system of monitoring, analysis and evaluation of antiretroviral therapy, as well as output spreadsheets on registration flow, reasons for non-adherence to ART, and measurements of monitoring indicators. In August 2006, all materials were presented and discussed at a meeting with specialists of the National AIDS Center, UNAIDS, the World Bank and DFID-funded CAAP Project, and CDC. Feedback and recommendations were solicited and incorporated. Participants at the meeting decided that the ART management system would be integrated into the overall electronic system on AIDS case management that is now being developed by CDC and CAAP.

In November 2006, materials were presented at the *Regional Meeting on HIV Case Management in the Central Asian Republics* organized by CAAP and CDC. Meeting participants overwhelmingly approved the concept, goals, and objectives of the electronic ART management system as well as all the forms. Moreover, it was decided that the electronic ART management system, developed with CAPACITY technical assistance in Kazakhstan, will be used as a model when developing similar systems in other Central Asian countries. CAPACITY is now looking forward to piloting the developed system and forms and to see how the system works in the field.

