Institutionalizing e-TB Manager as a national TB registry in Ukraine

Ukraine has the second-highest burden of TB in the European region. According to the Ukraine’s Ministry of Health, TB is the leading cause of death from infectious diseases in the country. Ukraine’s efforts at TB control use a mix of standardized approaches, including Stop TB strategies, as well as directly observed therapy short-course (DOTS) guidelines and recommendations.

However, the information management critical for effective TB control has been a significant challenge for Ukraine’s National TB Program (NTP). The low quality of data on TB, the extensive use of non-standard TB treatment courses, and a weak monitoring and evaluation system within the NTP have hindered the success of the program.

E-TB Manager is a web-based software that integrates data across all components of TB control. This includes information on people with presumptive TB, patients, medicines, laboratory testing, diagnosis, treatment, and outcome. What makes e-TB Manager such an effective tool in the fight against TB is its capacity to integrate all components in one database, thereby avoiding a disconnect between different interventions. The program helps the MoH and other stakeholders to successfully manage a number of interventions, including those meant to address both susceptible and drug-resistant TB; TB/HIV co-infection; inventory management for first- and second-line TB medicines; effective medicines usage; the reporting of treatment outcomes; and epidemiological and statistical reporting on TB by health system level and type of TB case.

Following a pilot and implementation of the e-TB Manager software by SIAPS and its predecessor, the Strengthening Pharmaceutical Systems (SPS) Program, administration of e-TB Manager has now been officially transferred to the Ukrainian MoH. This transfer is testament to the strong foundation that has been built in the country to ensure the sustainability of the national TB registry and management system, as well as to advancements made in disease control on a larger scale.

Adaptation, implementation and institutionalization in the Ukrainian context

In 2008 the MoH requested technical support from USAID for the adaptation and implementation of e-TB Manager for the Ukrainian context. This process began the next
The biggest advantage of using the national TB registry is the ability to make quick decisions because of real-time access to patient information in my oblast.”

- Dr. Tatiana Pasko, Kievska Oblast

year as a part of the SIAPS predecessor, the Strengthening Pharmaceutical Systems Program, implemented by MSH. During next three years national stakeholders, coordinated by SPS Ukraine, worked together to tailor the system, perform national and regional level implementation, deliver trainings, perform site visits, and provide user support.

For e-TB Manager to replace the inefficient paper-based registry and reporting system, it was necessary to enter all TB cases into the new system. Piloting of the system began in April 2011, when there were more than 5,000 cases entered. In two years, 24 of 27 oblasts were routinely entering data into the system, and 67,000 cases were entered. As the number of cases in the system continued to increase, the development of data quality assurance protocol was started to provide for error-free registry and reporting. As of August 2015, a total of 185,760 cases were in the system, and the consistency between paper-based and electronically generated reports was about 99%.

The midterm results of e-TB Manager implementation were impressive, and positive feedback from users and administrators of the system provided confidence to the Government of Ukraine, which yielded the official adoption of e-TB Manager as a National TB Registry in 2012. That same year, e-TB Manager was verified for data security issues and was certified by the State Security Service of Ukraine.

During the entire course of adaptation and implementation of e-TB Manager in Ukraine, the Ministry of Health and the Ukrainian Center for Disease Control have proved to be champions of this process. Their demonstrated leadership and country ownership provides a solid base for the future sustainability of achieved results.

Results
Today, e-TB Manager is recognized as an effective information management solution for Ukraine’s efforts to control TB. It has rendered a valuable impact in Ukraine by strengthening the system of monitoring and evaluation and providing a best-practice example which may be used to enhance other national public health programs.

“The national TB registry is unique in Ukraine,” says Dr. Yuliya Milova, an MDR-TB statistician in Odessa Oblast. “We do not have similar type of electronic registry for other disease programs, and my doctor friends and specialists from other hospitals ask me so many questions about this registry because they do not have something like this for their job.”

The e-TB Manager software has been helpful in reducing the time needed by doctors for recording and reporting, allowing them to better allocate that time for patient care. For example, in one oblast, one TB doctor reported that it used to take no less than eight day-long trips in a year to bring all reporting forms from the district to the oblast level. With e-TB Manager, this time was halved.

e-TB Manager also halved the time needed to switch a patient from drug-sensitive to MDR-TB treatment. Moreover, e-TB Manager helps to improve the quality of care by providing the tracking of records on every patient, thus increasing the rational use of medicines and ensuring more effective treatment.