



STRENGTHENING TUBERCULOSIS CONTROL IN UKRAINE

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ACRONYMS

ACSM	Advocacy, communications and social mobilization
AIDS	acquired immunodeficiency syndrome
AR	Autonomous Republic
ART	Anti-retroviral therapy
CoE	Center of Excellence
COP	Chief of party
CT	Computer tomography
DOTS	Directly observed treatment short course
DRS	Drug resistance survey
DST	Drug susceptibility testing
EQA	External Quality Assurance
FACT	Finance, Accounting, and Compliance Team
GF	Global Fund for AIDS, Tuberculosis, and Malaria (GFATM)
GoU	Government of Ukraine
GTBI	New Jersey Medical School Global Tuberculosis Institute
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
IC	Infection control
IEC	Information, education, communication
KAP	Knowledge Attitude and Practice
M&E	Mentoring and evaluation
MDR-TB	Multi-drug-resistant tuberculosis
MOH	Ministry of Health
NGO	Non-governmental organization
NRL	National Reference Laboratory
NTP	National Tuberculosis Program
OR	Operational research
PAL	Practical approach to lung health
PHC	Primary health care
PLWA	People living with AIDS
PLWH	People living with HIV

PMDT	Programmatic Management of Drug Resistant TB
PY1	Project Year 1
RC	Ukrainian Red Cross Society
R&R	Recording and reporting
SES	Sanitary - Epidemiological Services
SIAPS	The Systems for Improved Access to Pharmaceuticals and Services
State Service	Ukraine's State Service of Socially Hazardous Diseases
STbCU	Strengthening Tuberculosis (Tb) Control in Ukraine
TB	Tuberculosis
UCDC	State Institution "Ukrainian Center for Social Disease Control of MOH of Ukraine"
USAID	United States Agency for International Development
WHO	World Health Organization
WG	Working Group
XDR-TB	Extensively Drug-Resistant Tuberculosis

PROJECT OVERVIEW

The five-year Strengthening TB Control in Ukraine (STbCU) project, implemented by Chemonics International in partnership with Project HOPE and the Global TB Institute (Medical School of New-Jersey, seeks to improve the health status of Ukrainians by decreasing the burden of TB through specific quality assurance and system strengthening measures for routine TB services and multi-drug resistant (MDR-TB) and HIV/TB co-infection. This report presents implementation progress in the fourth quarter of Year I (January 1, 2013 - March 31, 2013).

The STbCU project continues to enhance the quality of TB services in 10 administrative territories of Ukraine (seven oblasts: Kherson, Zaporizhzhia, Dnipropetrovsk, Donetsk, Odesa, Luhansk, Kharkiv, and the Autonomic Republic of Crimea; and two cities: Kyiv and Sevastopol). To ensure sustainability of effective TB control in Ukraine in accordance with international recommendations, the project works with Government of Ukraine (GoU) and partners towards improving laboratory TB diagnosis and building-in external quality assurance (EQA) of lab tests; ensuring patient-centered/supportive environment to strengthen adherence to appropriate treatment of each TB patient; institutionalizing international best practices in TB infection control; and expanding effective response to the growing rates of TB/HIV co-infection. TB systems-strengthening activities are being implemented at two levels: building the capacity of national and oblast institutions for specialized TB services and supervision, and training of health care providers and demonstration of best practices of TB control at the primary health care level. The activities indicated above support the four prime objectives of the project, as follows:

- *Improve the quality and expand availability of the WHO-recommended Directly Observed Treatment Short-course (DOTS)-based TB services*
- *Create a safer medical environment at the national level and in USAID-supported areas*
- *Build capacity to implement programmatic management of drug-resistant TB (PMDT) programs for MDR-TB and XDR-TB at the national level and in USAID-supported areas*
- *Improve access to TB/HIV co-infection services at the national level and in USAID-supported areas*

ACCOMPLISHMENTS SUMMARY

During this quarter, the STbCU project focused on the provision of technical assistance following the draft detailed results and activities described in the project's Year 1 work plan pending USAID approval.

Skills enhancement. The project has worked towards establishing the National Tuberculosis Program's (NTP) cascading in-service training system using international standards in TB control. STbCU's various training activities supporting each of the four project objectives were assembled in a comprehensive training plan. The Project utilized mentoring as an integral part of a cascading training approach. The latter includes supervision of post-training information sharing and practical application of evidence-based practices. Training interventions have become a regular, large-scale component of the NTP's educational effort as a step in building institutional capacity for improved DOTS-based TB control program.

To date, project-supported trainings for enhanced knowledge on the WHO Stop TB Strategy reached a total of 347 health care providers in 10 regions.

To strengthen the formal medical education system, trainings on TB case management for primary health care (PHC) providers were piloted as a part of the post-graduate educational program at the National Medical Academy of Postgraduate Education, and included up-to-date international approaches. Additionally, STbCU reached an agreement with the Luhansk State Medical University to embed this training curriculum into the University's postgraduate curriculum for students taking primary health/family medicine courses.

The Project developed a strategic basis for establishing a TB Training and Information Resource Center to help in further adoption of international standards of TB control and treatment based on DOTS. A Tuberculosis Training and Information Resource Center Research Brief was finalized in collaboration with the Panagora Group, a U.S.-based woman-owned small business with expertise in global health, organizational development, knowledge management, and ICT. The research brief includes a framework for setting a vision and strategy for the TB Training and Information Resource Center, and evaluates several TB resource centers as suggested models. The brief also sets out options for the Center services and software choices, and website content development. The TB Training and Information Resource Center will be focused on supporting continuous advancement of TB-related education.

Quality of DOTS-based services. Building on the predecessor project, STbCU promoted the restart of external quality assurance (EQA) of sputum microscopy for improving laboratory TB diagnosis. EQA was strengthened in nine out of 10 USAID-supported regions covering 1st level laboratories. The Project can report a 5% increase of laboratories performing TB sputum microscopy with over 95% correct microscopy results (USAID Indicator), improving from a baseline of 72.3% laboratories to a current 78.5%. As national regulations for EQA implementation are absent, STbCU provided technical assistance and urged the MOH Laboratory Working Group to develop a regulatory framework for EQA procedures in laboratory TB diagnosis. STbCU also provided input to formulating the national EQA guidelines following WHO-recommended practices.

STbCU commissioned a rapid survey and analysis of “Gender-specific characteristics of TB patients’ behavior and life activity” (see Annex 1), which revealed that gender differences can be key factors affecting: an individual’s risk of becoming infected and developing TB; patients’ access to medical information; medical care-seeking behavior; adherence to treatment; and, eventually, treatment outcomes. Furthermore, gender characteristics shape an individual’s ability to cope with emerging situations and determine social consequences of TB. The results of this survey will be utilized to improve delivery of TB control services, to better target information, education, and communication (IEC) activities and to justify the need for intensified psychosocial support to increase positive treatment outcomes.

Improvement of the National TB program management. STbCU initiated the establishment of the national expert group on TB program mentoring and took the responsibility to support TB program mentoring in the USAID-supported regions. The Ukraine’s State Service of Socially Hazardous Diseases (State Service) affirmed its commitment to take leadership in and supervise

TB mentoring and evaluation (M&E) system as a part of the NTP. The STbCU project was pointed out as one of the key partners in implementing TB control M&E, combining compliance-related mentoring and mentoring activities oriented at capacity building. To date, project staff and consultants have held 37 mentoring visits to rayons and cities in the USAID- supported regions. Each visit included on-the-job capacity development sessions on the topics relevant to health care providers' responsibilities, and focused on addressing drawbacks in their performance.

STbCU continues to participate in proceedings of the MOH committee on drugs, medical commodities and equipment specifications to be procured for the NTP. The Project has promoted utilization of an evidence-based approach to selection of drugs and diagnostic tools at MOH procurement /nomenclature working group. As a result of STbCU technical assistance, a sufficient quantity of drugs to tailor first- and, especially, second-line internationally recommended TB and MDR TB treatment regimens are going to be procured in 2013. In addition, due to STbCU advocacy of WHO- recommended international approaches, this Committee decided to avoid procuring poorly known TB-infection test kits to replace tuberculin skin tests, and recommended investing in immune chromatography test commodities to differentiate Mycobacteria tuberculosis complex and MOT (Mycobacteria other than tuberculosis) which is critical for diagnosing HIV-associated tuberculosis.

TB Infection Control. STbCU spearheaded the development of a training curriculum "TB Infection Control in Medical Facilities in Ukraine" for VI-year medical students. Furthermore, STbCU promoted the endorsement of this training curriculum as a mandatory educational course in all medical universities in Ukraine. TB Infection Control plans were updated in 16 TB Hospitals and two AIDS centers with STbCU assistance. An analytical report on healthcare workers' knowledge about TB infection control and related practices was completed to inform further educational activities and technical assistance to medical facilities to improve TB infection control (see Annex 2).

Operational research. STbCU completed a baseline study of patients' satisfaction with TB-related services (see Annex 3). The study is a basis for the upcoming project operational research on delays in TB case detection, social determinants influencing the treatment effectiveness and default rate, and performance of the medical system.

Awareness of and community involvement in TB control. Joint outreach activities on TB control measures were conducted in partnership with other USAID-funded projects, including Bibliomist and AgroInvest. These synergetic activities provided TB-related information to projects' target groups, e.g. to farmers, seasonal workers, and rural communities. STbCU and the above-referenced projects worked with rayon and village administrations to improve access to TB services for local inhabitants and ensure continuous dissemination of health information to target populations. Additionally, on March 5-6, 2013, in collaboration with the USAID Parliamentary Development Project (PDP II), STbCU participated in the 6th Information Fair in Verkhovna Rada (Ukrainian Parliament) to advocate the TB control agenda in front of Members of the Parliament, their assistants, and the Verkhovna Rada Staff. In March 2013, the Project facilitated a variety of TB-related public awareness events to commemorate World TB Day (March 24).

STbCU captured public and private sector interest to support TB control in Ukraine; the private-public mix approach in implementing programs is appreciated by USG/USAID worldwide. One of the country's leading providers of beverages ("Obolon" Corporation) requested technical support in raising awareness of TB. On March 20, STbCU provided technical information on TB infection control for its workers as a part of the World TB Day awareness-raising. Project staff organized a TB awareness presentation on TB prevention, diagnostic, and treatment, and distributed informational materials. Roughly 1,000 factory workers were reached with presentation and informational materials. Per the request of the factory's doctor, STbCU training materials will be used by the Obolon factory for future TB awareness meetings.

Additionally, training on WHO-recommended DOTS-based TB services was provided to the factory's healthcare workers. As a result of the TB awareness efforts and the training intervention, and with consideration of recent detection of TB among workers, the Obolon factory is willing to initiate a regular active screening program for earlier TB detection among 3,500 workers, a practice currently recommended by WHO for contacts investigation in countries with high HIV prevalence.

In coordination with the STbCU project, Obolon agreed to participate in an incentive program to improve TB detection and to strengthen TB patients' adherence to treatment. The provision of mineral water, juice and other non-alcoholic beverages for free is a part of the incentive program which is being developed with TB hospitals to expand screening for TB detection and outpatient directly observed TB treatment.

ACCOMPLISHMENTS BY OBJECTIVE AND ACTIVITY

OBJECTIVE 1: IMPROVE THE QUALITY AND EXPAND AVAILABILITY OF THE WHO-RECOMMENDED DOTS-BASED TB SERVICES

ACTIVITY 1.1 BUILD INSUTITIONAL CAPACITY TO IMPROVE THE QUALITY OF DOTS-BASED PROGRAMS

Per task 1.1.1, the USAID STbCU Project continues to strengthen the formal medical education system by including up-to-date international approaches in TB control into educational programs. International recommendations emphasize an important role of primary health care (PHC) providers (physicians, nurses) in the initial TB detection at PHC clinics. Outpatient follow-on treatment of TB patients at PHC clinics after an intensive in-hospital phase of TB treatment is considered an effective approach to deliver appropriate directly observed TB treatment. It is pertinent to note that Ukraine is currently implementing health care reform focusing on expanding responsibilities and strengthening services of PHC/family medicine providers. Therefore, the Project paid specific attention to revising the educational program for postgraduate students taking family medicine courses.

A comprehensive, up-to-date training curriculum on TB case management at PHC facilities was developed to be included in the above indicated educational program. To achieve this, STbCU consultants reviewed training curricula which were previously used for in-service TB-related training of PHC providers, and elaborated a comprehensive set of training materials (curriculum,

samples of presentations, interactive sessions, handouts, etc.) reflecting the latest international approaches and standards in TB control. The updated training curriculum was adjusted also in accordance with national requirements for formal medical educational courses. The training materials have been expanded to shape a five-day course in accordance with the new requirements for: 1) PHC specialists on STOP TB, including practical approach to lung health (PAL); 2) laboratory specialists on TB culture and drug susceptibility testing (DST); and 3) epidemiologists and medical staff on TB IC. Following the issuance of Ukraine's new protocol on TB case management in December 2012, the above training materials have been again revised.

In addition to piloting these training materials for PHC/family medicine doctors as a part of a family doctor specialization course at the National Medical Academy of Post-Graduate Education, STbCU reached an agreement with the Luhansk State Medical University to embed this training curriculum on TB case management at PHC facilities into the University's postgraduate curriculum for students taking primary health/family medicine courses. STbCU submitted these updated training materials for approval to the State Service of Ukraine on HIV, AIDS and Other Socially Dangerous Diseases. Upon approval, these training materials will also be utilized for in-service TB-related training for PHC providers, in particular for family medicine doctors in the USAID-supported regions.

STbCU spearheaded the development of a training curriculum "TB Infection Control in Medical Facilities in Ukraine" for VI-year medical students. Further, the Project has promoted the endorsement of this training curriculum as a mandatory educational course in all medical universities in Ukraine.

Simultaneously, STbCU advocated for resuming meetings of the MOH Working Group (WG) on Education. STbCU reached an agreement with the MOH to include experts from USAID-supported regional medical universities to this group in order to update and finalize the curricula for pre-service and post-graduate formal medical education that cover essential TB control components. The STbCU project will work through this WG to have these educational materials officially approved by the MOH.

STbCU progressed in establishing a TB Training and Information Resource Center in accordance with task 1.1.2. A TB Training and Information Resource Center research brief was prepared in collaboration with The Panagora Group, a women-owned small business providing sustainable international health solutions. Panagora Group was selected as a partner for this activity due to their past experience in organizational development, health knowledge management, and ICT to support knowledge-sharing, training, and collaborative learning; Panagora Group's principal, Betsy Bassan, the Director of Panagora Group, contributed to the development of the research brief, bringing more than 30 years of experience in providing sustainable solutions in the field of international health. Inputs to a vision and strategy for establishing the TB Training and Information Resource Center were developed under this subcontract, which was informed through the analysis and evaluation of several resource centers around the world. Among the various centers reviewed were Harvard University's Global Health Delivery project, and USAID-funded TB CARE II's drug-resistant (DR) TB Training Network, which had elements that could be used as relevant models for Ukraine, given the e-resource content and international

target audiences for their e- portals. The brief also describes best practices and lessons learned about center objectives, strategy, design, software options, labor, and content development and maintenance, which will help inform the web site RFP, content, management, and sustainability plan. Components for a functional e-resource center include:

- Up-to-date information on industry events, news, etc.
- Resources for TB treatment and management for health professionals, typically:
 - Existing literature
 - A range of products (CD, DVDs of webinars and online courses)
 - Newsletters
- Online training for medical/health professionals often with CME/CE credits:
 - Webinars (live)
 - Self-study courses
 - Medical consultations
- Discussion groups with experts.

To fulfill task 1.1.3 and improve the quality and expand availability of WHO-recommended DOTS TB services, the STbCU project has worked towards establishing the NTP's cascade in-service training system using international standards. Following recommendations of the initial project stakeholders meeting on April 23, 2012, STbCU focused its first year in-service trainings on TB detection and treatment for primary health care providers, including family medicine doctors, nurses, and 1st level laboratory's specialists. Similarly, the Project spearheaded the development of training materials on TB infection control, and started trainings for public health epidemiologists (representatives of sanitary-epidemiological stations (SES)); this activity also supports the fulfillment of tasks 2.1.1 and 2.1.3.

As introduced in the Accomplishments Summary, STbCU's training activities supported each of the four project objectives and were assembled in a comprehensive training plan. The Project used mentoring as an integral part of a cascading training approach. After a training course (or retraining), trainees should provide on-the-job training to colleagues at their work places, e.g. at a routine medical conference/discussion of cases in a hospital/clinic's department. Further, mentoring and supervision of trainees performed by the project staff or consultants is incorporated as a part of regular capacity building activities and starts no later than six months after the training delivery. A representative cohort of trainees will be visited at least once in three to six months after the training to monitor how the advanced knowledge and practices are applied, and whether the training content is shared.

This quarter, the project provided 12 in-service training courses on DOTS-based TB control. A total of 238 health care providers from USAID-supported regions were trained. STbCU provided initial and refresher trainings on the TB-control international approaches to 188 PHC /family medicine doctors, to 104 nurses, and to 46 laboratory specialists. Project trainers evaluate trainings in accordance with standard procedures: specifically developed tests are completed by trainees before and after the training to gauge participant's knowledge of TB control before and after the training. A breakdown of training activities in DOTS elements by the number and type of specialists trained, project administrative area, and type of training is presented in Annex 4.

In addition to the referenced trainings, the project conducted workshops, roundtables and conferences this quarter. These educational activities were organized for all types of medical professionals and addressed essential components of TB control through participants' knowledge and experience sharing. Specifically, these educational activities focused on practices and challenges of TB diagnosis, treatment and mentoring services, and on involving primary health care practitioners into the provision of DOTS-based TB services.

STbCU facilitated a series of events (conferences and round tables) to summarize TB treatment results, NTP's accomplishments and challenges in 2012 as a part of mentoring activities in the USAID-supported regions (per task 1.1.3 and 1.1.5). The following topics were included:

- Presentation of the STbCU Project's aim, objectives, tasks, and mentoring activities;
- Results of NTP performance over the past year according to the key TB indicators and evaluation of TB treatment results based on a cohort analysis;
- Achievements and gaps during the implementation of the DOTS-based TB program;
- Further issues to be resolved.

The below indicated events were conducted in five USAID-supported regions with participation of a total of 304 persons:

- Dnipropetrovsk oblast - 83 specialists took part in the conference on February 27, 2013;
- Zaporizhzhia oblast – 75 participants participated in the summary conference on February 21, 2013;
- AR Crimea – 19 TB specialists and representatives of NGOs took part in the roundtable discussions on March 6, 2013 ;
- Luhansk oblast – 58 TB specialists participated in the TB Control Outcome conference on March 27, 2013;
- Kharkiv oblast– 74 representatives of the TB services took part in the summary conference on February 14, 2013.

Per task 1.1.4, STbCU has provided technical assistance to increase TB laboratory network efficiency. The project chief of party (COP) and/or laboratory specialist participated regularly in settings of the MOH WG on improvement of TB laboratory network's functioning and quality control of laboratory tests. The project staff took part in proceedings of this WG on February 22, 2013 and March 5, 2013 to promote inclusion of international recommendations for the quality laboratory TB diagnosis to the Ukraine's national regulations on quality assurance of TB laboratory tests; these recommendations are currently under consideration by this WG. Members of the group discussed a variety of topics, including:

- The needed revisions of the regulations on ensuring quality laboratory TB diagnosis. A schedule for revising the regulations in 2013 was approved by the group members.
- A plan for optimization of the TB laboratory network in 2013.
- An algorithm for utilizing genetic tests in laboratory TB diagnosis.
- A draft MOH order on ensuring the quality of laboratory TB diagnosis.

- Ukraine’s guidelines on implementing external and internal quality control of laboratory TB diagnosis.

The group members elaborated a set of critical recommendations/decisions including:

- Revision of a staffing pattern in TB laboratories by adding a laboratory specialist position to perform EQA as a mandatory requirement.
- Recommendation of the utilization of genetic tests with the GeneXpert machine at AIDS Centers to improve and expedite TB and MDR TB diagnosis among HIV patients. It is worth noting that the STbCU project plans to provide XPERT MTB/RIF to the Kyiv AIDS Center, and to pilot a screening program for earlier and reliable diagnosis of TB/HIV and MDR TB/HIV cases.
- Improvement of procedures and diagnostic materials (e.g. preparation of slides/panels for comparative tests) to effectively utilize external and internal control of laboratory TB diagnosis, and to use results of quality control for general evaluation of the laboratory performance.

STbCU continued to provide five-day trainings “TB Detection by Sputum Smear Microscopy: Quality Control of Tests.” These trainings are described under task 1.1.1 and reflected Annex 4. It is worth adding that these trainings focused primarily on quality control of sputum microscopy for TB detection. Trainings were delivered to heads of 1st level laboratories by Ukrainian trainers who had in-depth experience in implementing EQA in their regions.

A restart of EQA of sputum microscopy for TB detection triggered discussions on practices of EQA and analysis of its results, selection of people with TB symptoms who should be tested, collection of sputum and other laboratory-specific issues at the PHC clinics. Per task 1.1.3 and 1.1.4, workshops dedicated to the quality control of sputum smear microscopy for TB detection took part in 5 USAID-supported regions with participation of a total 140 lab specialists:

- Crimean AR – 18 lab specialists gathered on February 12,
- Sevastopol city – 11 laboratory specialists participated in the workshop on February 14, 2013;
- Kherson Oblast –35 lab technicians participated in the EQA workshop on March 15, 2013;
- Kharkiv Oblast – 46 lab specialists took part in the workshop on February 15, 2013;
- Odesa Oblast - 30 lab specialists participated in the workshop on March 5, 2013

(For a more detailed description of these workshops, please see Annex 5 which includes an agenda of the workshop in Kharkiv as an example).

Participants of above-described workshops analyzed performance indicators of TB laboratories in 2012 and evaluated the project influence on EQA implementation. Laboratory specialists from all USAID-supported regions appreciated the fact that EQA renewal was made possible only due to STbCU project technical support.

In Q4 Y1, EQA for microscopy TB detection was intensively implemented in the Zaporizhzhia, Odesa, Kherson oblasts and in the AR Crimea. To date, the project can report a 5% increase of

laboratories performing TB microscopy with over 95% correct microscopy results (USAID Indicator) from a baseline of 72.3% of laboratories to a current 78.5%. However, some problems persist. There continues to be an absence of formal regulations on the utilization of EQA for laboratory TB diagnosis; regional laboratory specialists do not conduct mentoring visits to all TB microscopy centers, in particular, microscopy units in remote rayons are not covered; blind selection of samples for rechecking TB microscopy results are not done to the required extent and the methods for preparing the panels for control checking do not meet the standards.

In this quarter, the project supported mentoring visits to 3rd-level laboratories in six regions: AR Crimea, Sevastopol City, Kyiv city, Odesa, Kherson and Kharkiv regions. The common bottlenecks were revealed and included:

- Absence of pure substances of TB drugs' active ingredients,
- Tests on TB drugs resistance (DRT) performed in 2nd level laboratories that do not adhere to standard recommendations, as these laboratories are not covered by EQA for DRT;
- Incomplete laboratory biosafety measures followed; and
- A shortage of staff to perform laboratory functions

The project plans to procure two systems of GeneXpert machines for expeditious differentiation of TB and MDR TB; the TB Hospital in Kryviy Riy City and the Kyiv AIDS Center will be equipped with this system. A targeted screening program will be implemented to detect TB or MDR TB among HIV patients. The project developed a training curriculum on the effective utilization of the XPERT MTB/RIF –based method.

Per Task 1.1.5, the STbCU project strengthens TB M&E systems and TB surveillance. On February 25, 2013, the STbCU Project organized the stakeholders working meeting aimed at coordinating efforts for advancing the TB control M&E system in Ukraine. The main outcome of this meeting was a statement of the Head of the State Service on the necessity to update the TB control M&E system and the next steps to do so. The State Service affirmed its commitment to take leadership in and supervise the process of advancing the TB M&E system. Dr. Alexandrina, the State Service's Head, urged UCDC to expedite completion of the NTP's M&E plan, along with completion of M&E tools (checklists) to be used during field mentoring visits. Dr. Alexandrina requested a short list of key TB surveillance and TB control program indicators be developed to reflect performance of regional TB control programs. The STbCU project was singled out as one of the key partners in ensuring M&E in TB control is strengthened.

The STbCU project encouraged the State Service and UCDC to renew the functioning of the expert group with participation of representatives of partner organizations to provide technical support in advancing the TB M&E system. This technical WG has already started its bi-weekly meetings and drafted its working plan.

During the reporting period, project consultants (field coordinators) and project staff conducted eight mentoring visits to rayons and cities in the USAID- supported regions. Each mentoring visit included on-the-job capacity building educational sessions on the topics relevant to health care providers' responsibilities and on identified shortcomings in their performance.

The STbCU project provided technical assistance to convene summary conferences and discuss regional TB control programs' accomplishment in 2012 in USAID- supported regions. A detailed description of these events as a part of mentoring activities is provided under task 1.1.3.

In support of task 1.1.6 and to contribute to communications and social mobilization interventions, the Project distributed approximately 6,000 copies of STbCU informational materials during TB awareness events to commemorate the World TB Day (March 24). The STbCU project facilitated a variety of events in March 2013 described in Annex 6. At large, these events catered to two target audiences: health professionals, and the general public. Events hosted for health professionals included a scientific/educational conference to discuss the new international approaches in TB control, results of TB-related international and national research/studies; accomplishments and drawbacks of regional TB control programs, and challenges ahead. For the general public, the project focused events to awareness of TB, its prevention, diagnosis and treatment.

Flash-mobs To Raise TB Awareness

"I am engaged in development programs in Europe and a healthy way of life is one of our top priorities... This event is something unique for me; I've seen something alike only by TV before. But this is a great way to deliver messages on human health." -- **Adam Rykhlic, supermarket visitor, witness of the TB flash-mob in Luhansk**

ACTIVITY 1.2: EXPAND ACCESS TO TB SERVICE DELIVERY TO IMPROVE PREVENTION, DIAGNOSIS AND TREATMENT OF TB

In addition to organizing World TB awareness events throughout key regions in Ukraine, which resulted in increased awareness and attention on TB prevention, diagnosis, and treatment, STbCU continued to be an active partner in the TB-related ACSM community, and its Health Knowledge Management and Communications Specialists participate in the ACSM partners' meetings on an ongoing basis.

To prepare for ACSM sub grants, the Project readied its grant application requirements, templates, and pre-award checklist, including M&E guidance for potential grantees, to ensure the grants program could start immediately after USAID approval of the grants manual.

To improve prevention and treatment of TB for miners, a high-risk group, STbCU prepared a study tour for D-TEK health care workers to the Dnipropetrovsk TB Center of Excellence and Donetsk TB Training Center. D-TEK, a Ukrainian Corporation of Mine Industry, runs a health program to cover miners. The Corporation is currently interested in including up-to-date TB services in their health program. With STbCU support, the D-TEK health strategic team now has further resources to build the capacity of the Corporation's healthcare workers in TB detection and treatment. A STbCU project specialist developed a specific check-list to assess this industry's medical facility with regard to the availability of appropriate equipment, access to and collaboration with specialized TB facilities, and capacity of the staff to provide TB services. As part as the suite of IEC materials for the general public and patients, the STBCU project developed a new informational pocket-sized booklet. The material contains information on TB clinical signs, risk factors and TB-related web-resources. In addition, the format includes a mini-card with a table of essential nutrients in nutritious foods to help build a proper immune system, with the note that proper nourishment is a way to prevent TB. The tactic used was to stimulate people's interest in a healthy diet as a means to promote an important TB preventative message.

ACTIVITY 1.3: CONDUCT OPERATIONAL RESEARCH TO IMPROVE THE NATIONAL TB PROGRAMS (NTP) PERFORMANCE

To lay the foundation for the Operational Research Initiative, STbCU conducted two baseline surveys (See Annexes 1- 3). STbCU completed a baseline study of patients' satisfaction with TB-related services (see Annex 3). This study revealed a:

- High level of patients' satisfaction with the availability of counseling;
- An overwhelming majority of patients confirming the accessibility of TB diagnosis services;
- A majority of patients satisfied with TB medical personnel's attitude.

However, despite these positive trends, a comparative analysis of the list of issues raised during the counseling sessions disclosed that less than half of the respondents received more or less complete information on the disease, treatment characteristics, prescribed drugs, possible side effects and other important subjects for developing strong adherence. The main reason for not seeking TB services was habitual self-treatment for any respiratory problems prevailing in the country. Fear of stigma in the society, on the one hand, and the need to pay out-of-pocket for the drugs, on the other hand, were defined as strong barriers for TB treatment. It is alarming that patients did not view out-of-pocket payment as a violation of their patients and human rights.

A separate sub study "Gender-Specific Characteristics of TB Patients' Behavior and Life Activity" deepened investigation of client satisfaction with TB services by focusing specifically on gender issues (see Annex 1). The study revealed common characteristics for both genders showing that:

- There was no significant gender barriers and discrimination in access to TB diagnosis and treatment;
- Low level of knowledge about TB symptoms was typical for both genders.

The following gender-specific differences were found and/or proven:

Men are slightly more at risk for TB

- Women demonstrated less delay in seeking medical care when they got sick.
- There were significant gender differences related to TB treatment, as women demonstrated more adherence and had less subjective grounds for treatment interruption;
- Women coped better with the challenges of accepting TB diagnosis, and handling the side effects of treatment and hospitalization to TB care facilities where the conditions are not comfortable.

These studies will help inform the upcoming operational research on delays in TB case detection, social determinants influencing the treatment effectiveness and default rate, and performance of the medical system. Furthermore, results of these surveys on TB patients' satisfaction with TB services will guide the improvement of the STbCU Project interventions and, in general, medical and social services for TB patients.

STBCU analyzed results of a survey on healthcare workers' knowledge of TB infection control and related practices (see Annex 2). It was completed to inform further educational activities and

technical assistance to medical facilities to be targeted by the STBCU project at improving TB infection control. More detailed information on this infection control-related survey is provided under task 2.1.1.

OBJECTIVE 2: CREATE A SAFER MEDICAL ENVIRONMENT AT THE NATIONAL LEVEL AND IN USAID-SUPPORTED AREAS

ACTIVITY 2.1 IMPROVE INFECTION CONTROL

Per task 2.1.1, the STbCU project completed an analysis of a TB IC-related survey “Health care workers’ knowledge of TB infection control and related practices.” The survey had several purposes:

- To define a baseline for project indicator “Proportion of health care workers who are knowledgeable on proper infection control practices;”
- To have understanding of health care workers’ attitude to IC requirements;
- To observe current practices of IC at work places in TB and AIDS facilities.

According to the survey results, a baseline level of health care workers’ knowledge on TB infection control is zero. At the same time, high coverage with IC routine on-the-job information is indicated. This discrepancy can serve as an indicator of the low effectiveness of routine IC information in medical facilities. Eighty-three percent of respondents indicated a high need for a well-developed training in IC. Thus, it was decided to focus the main IC-related activities on changes in attitude and practices. The absence of knowledge on IC’s principles and practices, and inappropriate implementation of IC practices at work places guided STbCU to highlight the much needed change of attitude to implementing the required IC practices. Specific messages and blocks of information emphasizing the importance of changing health care workers’ attitude to TB infection control are extended to participants during trainings and other educational events conducted by the Project. IC survey results prompted the Project to adjust its steps in improving the knowledge on TB infection control and alertness of TB among medical staff at TB and AIDS facilities and better motivate them to take responsibility for ensuring safety environment for themselves and their patients.

In this quarter, STbCU focused its activities on promoting effective changes of everyday IC practices at the national and local levels. The STBCU project has provided technical assistance the MOH’s TB Infection Control working group. As a member of this group, STbCU encouraged the development of the joint action plan to coordinate TB infection control activities of the State Sanitary-Epidemiological Service and State Service on HIV and Other Hazardous Diseases. STBCU participated in the development of this joint plan and provided recommendations for its implementation.

The STbCU project staff reviewed official Ukrainian TB infection control regulations in order to recommend further revisions in accordance with international IC standards. The review identified the critical regulations to be revised. The review results and draft recommendations for revisions were submitted for discussion at the MOH’s TB IC working group.

To fulfill task 2.1.2, the Project team initiated and provided technical assistance for updating the IC plans in 16 TB hospitals and 2 AIDS centers. STbCU is also implementing a large-scale educational activity to dramatically increase health care workers' knowledge on the up-to-date international TB IC principles and practices at the regional and local levels in USAID-supported regions. The Project believes that a critical mass of health care workers supportive of up-to-date changes in IC or at least understanding the rationale of international TB IC standards will help endorse the new regulations and implement the advanced practices in the majority of targeted health facilities. To this end, the Project conducted workshops to discuss the implementation of new TB IC for specialists of sanitary-epidemiological stations, TB hospitals and AIDS centers in the ten USAID-supported regions. A total of 1,494 specialists were covered by these IC educational efforts.

Following their participation in the TB IC workshops, the STbCU project engaged specialists of sanitary-epidemiological stations to become members of its regional M&E teams conducting field mentoring visits. The revision of IC plans for 2013 in accordance with international standards in 18 medical facilities, calculation of the necessary supplies of respirators and ultraviolet lamps, and demonstration of individual protective equipment utilization are just a few examples of these field mentoring visits' results. STbCU project staff's participation in field visits provides for oversight and opportunities for making decisions to optimize patients flow with respect to IC requirements. For example, due to the Project's advocacy efforts, an MDR-TB department in Luhansk Oblast has been moved to a separate building of the remote Tryokhisbenka TB hospital.

After site visits, a medical facilities' IC Committees together with SES representatives conducted several meetings to develop or revise hospital-specific IC plans. For example, cooperation between the Kherson Oblast sanitary and epidemiological stations (SES) and the Kherson Oblast TB Hospital has led to revising a facility IC plan. Furthermore, the Kherson oblast TB dispensary and SES have prepared and submitted a joint request to the Oblast Health Administration to allocate additional funding for TB IC measures in the Oblast TB facility. Following the update of IC plans, the project facilitated a series of seminars with participation of representatives of the majority of the TB facilities in each oblast as follows:

- Dnipropetrovsk Oblast – 23 Heads of TB services and TB specialists, on March 28, 2013;
- Donetsk Oblast– 106 specialists, on March 12, 2013;
- Lugansk Oblast – four seminars for 213 TB specialists, PHC providers and SES's epidemiologists on February 20, February 21, March 20, March 21, 2013;
- Odesa Oblast – 65 SES specialists, on February 6, 2013;
- Kherson Oblast – 23 TB specialists, on February 27, 2013;
- Kharkiv Oblast – two seminars for 59 TB specialists and SES's epidemiologists, on March 14, 2013, March 15, 2013.

In addition to reviewing the newly developed hospitals' IC plans, participants of these seminars discussed the international approaches in TB infection control, hands-on training on utilizing individual respiratory protective equipment, and essential activities of hospital's IC committees.

ACTIVITY 2.2 INCREASE THE CAPACITY OF OBLAST SES TO IMPLEMENT, MONITOR, AND EVALUATE IC INTERVENTIONS

The project developed training materials on infection control in TB laboratories. Currently, these training materials are being reviewed by international experts.

OBJECTIVE 3: BUILD CAPACITY TO IMPLEMENT PMDT PROGRAMS FOR MULTI-DRUG RESISTANT/EXTENSIVELY-DRUG RESISTANT TB AT THE NATIONAL LEVEL AND IN USAID-SUPPORTED AREAS

ACTIVITY 3.1 PROVIDE TRAINING, SUPERVISION, AND MENTORING ON MDR-TB CASE MANAGEMENT

The STbCU project provided technical assistance to strengthen supervision over regional MDR-TB activities. Mentoring and supervision should be regularly performed by regional TB specialists as a part of essential TB control activities. The Project organized and facilitated the proceedings of a series of workshops to evaluate MDR-TB services, and discussions revealed deficiencies in service delivery and steps for improvement. These workshops took place in:

- Dnipropetrovsk oblast on January 12, 2013 with participation of 60 TB Service administrators and TB specialists;
- Odesa oblast on March 3, 2013 with participation of 100 TB specialists;
- Kharkiv oblast on February 19-20, 2013 with participation of 30 TB specialists.

As a result of analysis of MDR-TB services delivery, the Project has focused on improving the knowledge and skills of nurses. The trainings conducted for TB nurses addressed the issues of TB treatment under direct observation by medical workers watching patients swallow their drugs including also an outpatient phase of treatment that is one of the effective ways to ensure adherence to TB treatment and its successful completion. Also, the presentations and discussion at trainings addressed the practices to mitigate side effects during MDR-TB treatment and to monitor a treatment process. During an exercise to complete recording and reporting forms, it was emphasized that the accuracy of their completion is a basis of an electronic TB register (E-TB manager). The Project convened these trainings for nurses in Sevastopol city on January 22-23, 2013; in AR Crimea on January 18, 2013; and in Kyiv on January 23, 2013 and February 19, 2013; as well as in the Kharkiv oblast on March 21-22, 2013. A total of 91 nurses have been trained.

Per task 3.1.1, the STbCU project staff and other national experts continued to provide technical support to the Dnipropetrovsk Oblast Hospital's Center of Excellence. The project staff regularly visit the Center and observe practices of MDR TB case management. STBCU specialists visited the facility on January 11, 2013, January 23, 2013, and March 29, 2013 and extended assistance to improve the functioning of this hospital's MDR TB Council: medical discussion of MDR TB cases and decisions/conclusions formally confirming a diagnosis of MDR TB and prescribing an appropriate treatment regime including second-line drugs in accordance with international standards.

To fulfill task 3.1.2, the STbCU project staff utilized any appropriate possibility to advocate for MDR TB guidelines update to align them with international best practices. At the scientific TB-related conferences in the Kherson oblast on March 14, 2013, in the Odesa oblast on March 3, 2013, and in Luhansk oblast on March 27, 2013, the worsening MDR TB situation in Ukraine was discussed. The project specialists' presentations urged to further advance the new national TB/MDR TB protocol were at the top of participants' interest. Conclusions of discussions were formulated in the conferences' resolutions to be submitted to regional health administrations.

Over the first project contract year, the STbCU specialists participated in proceedings of the MOH's working group on revision of the TB and MDR-TB protocol. This working group suspended its meeting as the new national TB and MDR-TB standards and treatment protocols were endorsed in December 2012. Unfortunately, some of the new standards were included to the document at the last moment, and were not satisfactory according to the working group's members. The plan is to reorganize this MOH working group and further revise the TB and MDR-TB protocols.

In accordance with activities indicated under task 3.1.3 and national MDR-TB guidelines that comply with international standards, Project staff participated in meetings of MDR-TB councils in Odesa oblast in February. These councils in each regional TB hospital are the only authority that can confirm an MDR TB diagnosis and prescribe an appropriate treatment including second-line TB drugs. At the MDR-TB councils' meeting, Project staff pointed out an obligatory requirement to utilize the new national TB and MDR-TB standards and treatment protocols which, in general, follow international recommendations. The Project staff facilitated counsel of MDR-TB cases, and provided clarification to council members on international approaches in TB diagnosis and treatment practices, including mentoring interventions (periodic check-ups) of a treatment course. Participation in the regional hospital's MDR-TB Councils is a part of the Project's frequent mentoring visits to the USAID-supported regions.

Per task 3.1.4, STbCU continues to participate in proceedings of the MOH Committee on drugs, medical commodities and equipment specifications to be procured for the NTP. The Project has promoted utilization of an evidence-based approach to selection of drugs and diagnostic tools. Due to STbCU technical assistance, a sufficient quantity of drugs to tailor first- and, especially, second-line internationally recommended TB and MDR-TB treatment regimens is going to be procured in 2013. In addition, due to STbCU advocacy of WHO- recommended international approaches, this Committee decided to avoid procuring poorly known TB-infection test kits to replace tuberculin skin tests, and recommended investing in immune chromatography test commodities to differentiate Mycobacteria tuberculosis complex and MOT (Mycobacteria other than tuberculosis), which is critical for diagnosing HIV-associated tuberculosis.

Per Task 3.1.5, STbCU initiated and participated in the Drug Resistance Survey (DRS) working group to prepare implementation of the DRS in Ukraine, and contributed to the MOH order ("Nakaz") on DRS execution in the country. It is pertinent to note that Ukraine is currently attempting to establish a routine system for reliable MDR-TB diagnosis, data collection and analysis to understand the country's MDR-TB burden, drug resistance profile, justify the volume and types of second-line drugs supplies, and move forward with individualized treatment based on the drug resistant profile of each MDR-TB patient.

The DRS in Ukraine has been included in the STbCU contract and work plan, as laboratory procedures for diagnosing MDR-TB cases are still lacking external and internal quality assurance and still do not meet national standards. . Hence, the country’s drug resistance profile is currently unreliable. The situation is aggravated by a deficiency in utilizing automated equipment BACTEC for drug resistance tests, as there is shortage of BACTEC consumables and pure substances for drug resistance tests. Therefore, WHO notes: “At present routine data on the multidrug resistant tuberculosis burden countrywide is unavailable. The current understanding of the MDR-TB situation in Ukraine is based on a quality controlled drug resistance survey conducted in Donetsk Oblast in 2005/06 with one tenth of the Ukraine’s population, indicating 16% MDR-TB in new TB patients and 44.6% in recurrent cases.”

Ukraine’s Order on DRS implementation determines the study design, responsible entities, including STbCU, as well as regional and interregional levels (zones and clusters) hierarchy. To clarify the linkages between the National Reference Laboratory (NRL), Supranational Reference Laboratory, and 2nd and 3rd level laboratories and to prepare the DRS, STbCU organized a tour for international experts to several regions involved into DRS (Donetsk and Kharkiv oblasts and Kyiv city). Dr. Girts Skenders, Head of the Supranational Reference Laboratory in Latvia, Dr. Marija Joncevska, Regional Laboratory Advisor of Project HOPE, Drs. Anna Barbova and Olexander Zhurilo from NRL, and Dr. Svitlana Cherenko from Yanovskyy National Institute for Phtisiology and Pulmonology participated in this critical work.

The experts assessed readiness of laboratories and PHC to perform DRS, ensured compliance with international standards and share international experience. The overall situation has been appreciated as good, although a number of potential risks of survey efficiency were discovered. In the integrated report the experts outlined the ways to overcome possible obstacles and increase the study validity (see Annex 7). As DRS design calls for the use of routine diagnostic procedures, the visit was important not only for DRS, but also for the improvement of everyday laboratory practices.

STbCU started to pilot DRS survey in Kharkiv zone of DRS (interregional level), which also involves the Kherson oblast DRS cluster (regional level). The pilot study mostly targets the assessment of patients’ selection, sample logistics, and recording and reporting system.

OBJECTIVE 4: IMPROVE ACCESS TO TB/HIV CO-INFECTION SERVICES AT THE NATIONAL LEVEL AND IN USAID-SUPPORTED AREAS

ACTIVITY 4.1 IDENTIFY GAPS IN TB/HIV CO-INFECTION SERVICES AND BUILD CAPACITY TO ADDRESS THEM

Per task 4.1.1, STbCU and its international collaborative partner, the New Jersey Medical School Global TB Institute (GTBI), started to work on the gap analysis in the area of TB/HIV integrated service delivery and referrals. This analysis will be done in three stages:

- I. Develop a comprehensive tool to assess collaboration at the oblast and facility level.
- II. Undertake gap analysis of TB/HIV services at the local level.
- III. Data analysis

STbCU and GTBI developed a concept of the study, its objectives and tasks. The concept identified the following primary areas to consider:

- **Legislative and regulatory field**
- *Guidelines and standards on providing treatment for HIV (ARV treatment protocols) and TB/HIV treatment guidelines*
- *National and local regulatory acts that allow/prevent effective collaboration between HIV and TB branches.*
- *Regulatory acts that set up procedural standards for partnerships between the social sector (including NGOs) and TB hospitals.*
- **TB/HIV integrated service delivery and referrals. Collaboration in services: HIV and TB branch**
- *TB/HIV coordination entities at the national and local levels.*
- *Access to HIV diagnostics, care, and treatment services in TB institutions.*
- *Management of TB/HIV patients when they leave TB institutions*
- **TB/HIV outreach and care and support programs**
- *Current NGO programs and over local organization working in TB/HIV.*

In coordination with GTBI experts, STbCU developed a gap analysis timeline and an instrument for investigating TB/HIV integrated service delivery and referrals, which will be pretested in May in the USAID-supported regions.

To fulfill task 4.1.2, the STbCU project continued to identify gaps in TB/HIV co-infection services and build capacity to address them. The Project completed an analysis of normative-legislative documents on TB/HIV in the USAID-regions, which yielded the following:

- The regional normative-legislative regulations are absent in Kyiv, AR Crimea, and Kherson oblast;
- There is no officially endorsed algorithm for referrals between departments providing medical services to TB/HIV patients in the Dnipropetrovsk oblast;
- Screening for TB among HIV-infected patients by administering a questionnaire is not implemented in the regions, and it is not among the mandatory methods of screening (with exception of the Odesa Oblast –where a screening questionnaire is officially endorsed, however it is not yet being utilized), accordingly, a recording form for this screening method is non-existent.

- There are data on TB screening among HIV-infected persons by X-ray examination and tuberculin skin test in the USAID-supported regions (with exception of Dnipropetrovsk oblast). However, deficiencies in recording results of screening by these methods do not allow for quality mentoring and analysis of HIV-infected persons served (e.g. medical facilities calculate the quantity of services provided, but one HIV-infected person may have several services, and some persons may not receive any services).
- There is a discrepancy between data on the TB/HIV incidence and mortality in the TB Hospital and AIDS Center in Dnipropetrovsk oblast and in the Kyiv.
- Indicators on TB/HIV program's performance are established only in Sevastopol, but they are not in accordance with international recommendations.
- TB/HIV data are poorly analyzed, and performance of TB/HIV services is not evaluated.

STbCU provided technical assistance for drafting the Crimean MOH's Order "The referral system for and provision of services to TB/HIV patients in Crimea." To advocate incorporation of international recommendations for establishing joint TB/HIV services into the regional regulations, and thus, to institutionalize them, the STbCU project specialists initiated a meeting with the Deputy Health Minister of the AR Crimea and Head of the Department of Specialized Health Facilities. The MOH of AR Crimea agreed to ensure funding for the provision of co-trimoxazol to TB/HIV patients. Also, Project specialists successfully advocated for the development of the above indicated order with the appropriate referral algorithm and indicators to evaluate Crimean TB/HIV services.

STbCU also convened a TB/HIV working group meeting with seven people to review and revise the above indicated Crimean MOH's Order on the referral system. STbCU specialists recommended that this order also urges an assignment of a person responsible for the quality of provider-initiated counseling and testing (PICT) and referral services in each TB hospital.

The Kyiv AIDS Center sent a letter to the Kyiv Health Administration urging the development of the similar order "The referral system for and provision of services to TB/HIV patients in Kyiv." In the next quarter, the Project plans to have these orders endorsed in Crimea, Kyiv, Kherson and Dnipropetrovsk Oblast.

In Sevastopol, the Project also facilitated a TB/HIV working group meeting for nine people, where the performance of the TB/HIV services in 2012 in Sevastopol was discussed. Preliminary data collected as part of the STbCU needs assessment suggests that the TB/HIV-related death rate decreased by 20%, and that coverage by ART increased by 20%. At the same time, screening on TB covered only 37% of HIV-infected people. STbCU specialists suggested utilizing a screening questionnaire to improve screening coverage, noting that it is not necessary to refer HIV-infected patients to TB hospitals for X-ray examination and/or a tuberculin skin test; rather, it is better to refer them to PHC clinics or AIDS centers.

The Project conducted a workshop titled "Organization of Activities of Regional Coordination Committees on Combating TB and HIV" for members of the regional committee and heads of rayon and city coordination committees in the Kherson Oblast (involving a total of 51 people).

The workshop spurred a decision of Kherson Oblast State Administration to increase a funding for new regional TB and TB/HIV programs. The preventive treatment by co-trimoxazole of TB/HIV patients was added to the budget of the regional TB program.

Also, the Project facilitated the round table discussion in the Odesa oblast to improve a TB/HIV referral system between the civil and penitentiary TB services. On February 7, 2013, 14 participants agreed to develop a region-specific Odesa Oblast Health Administration's order on the algorithm of coordination between the civil and penitentiary system.

Per task 4.1.3, in February 22, 2013 the Project convened a meeting with specialists of the Ukrainian National HIV Training Center, where participants reviewed a memorandum on cooperation in developing and implementing TB/HIV-related activities for medical and social workers in health facilities. During this last quarter, the Project started to review available TB/HIV training materials.

ACTIVITY 4.2: ENSURE HIV TESTING FOR TB PATIENTS AND EFFECTIVE REFERRAL OF THOSE FOUND TO BE HIV-POSITIVE

Task 4.2.1. Build on existing models to scale up quality HIV testing and referral to TB clinics

The STbCU HIV specialist participated in a workshop supported by the USAID HIV-related project, Improving HIV/AIDS Services among Most-at-Risk Populations in Ukraine. The workshop gathered representatives of HIV programs' stakeholders to discuss coordination and scaling up the quality of HIV testing and referrals. STbCU recommended that attention be paid to the Referral Algorithm and explained that following HIV testing in TB hospitals, patients diagnosed with HIV should be referred to an AIDS center to ensure follow-on support to TB/HIV patients after an in-hospital phase of TB treatment.

STbCU also found that the "All-Ukrainian Network of People Living with HIV" NGO is not involved in HIV testing. STbCU staff met with the International HIV/AIDS Alliance representatives, and with the representatives of the USAID project Improving HIV/AIDS Services among Most-at-Risk Populations in Ukraine to clarify this issue. The STbCU project continues to monitor the availability of the HIV test supply; in cases where there is inadequate supply, STbCU will advocate to other projects to support uninterrupted test supply.

Task 4.2.2. Ensure HIV testing for TB patients and referral for HIV positive

STbCU developed a module of PITC (Provider-Initiated Testing and Counseling) within the training on "TB Case management in primary healthcare settings" for the medical staff of primary care facilities.

The STbCU conducted workshops for TB specialists and Infectious disease specialists in the cities of Sevastopol and Kyiv, the AR Crimea, Kharkiv and Dnipropetrovsk oblasts. The goal of the workshops was to improve the quality of TB/HIV care and referral, including testing of TB patients for HIV and screening for TB among HIV patients. A total of 254 people participated in these workshops.

The STbCU project's TB/HIV specialist participated in mentoring visits to the AIDS-Centers: Kharkiv, Kryviy Rih, Zaporizhzhia, Dnipropetrovsk, Sevastopol and AR Crimea AIDS-Centers, and to Kharkiv oblast TB Dispensary, Krasnoperekopsk Central Municipal Hospital (AR Crimea) and Simferopol Central Municipal Hospital (AR Crimea), and 35 people attended on-the-job trainings that were held in these areas.

STbCU monitors the supply of HIV tests for TB patients. This quarter, STbCU regions had sufficient supplies of HIV tests: enzyme-linked immuno-sorbent assay (ELISA) were provided by local budgets, and rapid tests for vulnerable population provided by local budget in the AR Crimea, by NGOs in the Kyiv city, by Clinton Foundation in Luhansk oblast, and by the Global Fund Round 10 in Odesa oblast.

ACTIVITY 4.3: PROVIDE TB SCREENING OF HIV PATIENTS AND REFERRAL TO TB SERVICES FOR THOSE WITH SUSPECTED CASES OF TB

Task 4.3.1. Build on existing models to scale up TB screening and referral for HIV patients

The draft of the MOH Order on TB/HIV is still under the revision of the TB/HIV working group. In order to introduce international best practices and approaches into the national TB/HIV regulations, in February 2013, STbCU applied to the State Service on HIV/AIDS and other Socially Hazardous Diseases with a request to include the STbCU TB/HIV Specialist into the interdisciplinary working group to improve TB/HIV services. Additionally, STbCU recommended including several indicators of TB/HIV patient referral, including PEPFAR indicators, in the draft of the "National Mentoring and Evaluation Plan of TB/HIV Co-Infection Control in Ukraine for 2013 – 2016".

STbCU quarter progress related to regulatory issues was discussed in 4.1.1. STbCU presented successful models of screening for TB among people living with HIV during the TB/HIV workshop and mentoring visits (see Section 4.2.2)

Per task 4.3.2., the Project worked to advance international best practices for screening HIV patients and referral to TB services. An analysis of Ukraine's regulatory basis showed that the MOH has already endorsed Order #1091 dated December 21, 2012 "On Standardization of TB Care". This Order endorses the TB Screening Questionnaire, which meets international standards. However Ukraine's AIDS-Centers and NGOs have not used the questionnaire in the clinical screening of people living with HIV for TB yet.

In April, the STbCU project will distribute advocate use of the screening questionnaire by the AIDS-Centers as one of the screening tools for TB in HIV-positive persons. STbCU will work to change the mindsets of AIDS-Centers staff for the need of further examination and referral of a HIV-positive person with suspected TB. To ensure tracing the patient at any stage of TB screening, the STbCU Project developed the Algorithm of Actions for Healthcare Staff (doctors working in AIDS-Centers, infectious disease specialists working in HIV Counseling and Testing Rooms or Infectious disease specialist's offices, and nurses working in AIDS-Centers, HIV Counseling and Testing Rooms or Infectious disease specialist's offices). STbCU maintains a TB/HIV database for mentoring and evaluation of services.

STbCU also developed the database format to be used in screening of HIV-positive people for TB in the AIDS-Centers. This database format will be endorsed by MOH Order "On care and referral of TB/HIV patients", issued at the regional level. It is impossible to receive extract the data on TB screening in people living with HIV from the E-TB Manager, as this program, contains data on TB patients, rather than on people living with HIV.

The STbCU Project plans to use this database as listed:

- It will enable the AIDS-Centers to monitor and evaluate the TB screening coverage in HIV-positive patients;
- STbCU and the regions will obtain data by the number of patients served, screening results, number of patients provided TB care after the screening, etc., rather than by the number of services;
- For the first time in Ukraine, the screening questionnaire results will be monitored and evaluated;
- The AIDS-Centers will register patients referred by infectious disease specialists to general practitioners for further examination (chest X-ray, tuberculin skin test)
- This database is expected to prompt the doctors working in the AIDS-Centers to ask for feedback in consultation with the TB specialist and TB diagnosis confirmation. This will ensure tracing of the TB/HIV co-infected patient.
- The database will facilitate regular screening and increase TB-HIV co-infected patients' coverage.

B. BUDGET

Quarterly Expenditure Report, Q2 FY 2013 (January-March, 2013)

Total Obligated Amount:	\$8,613,150
Total Estimated Cost of Award:	\$17,862,795
Total Cumulative Billed and Paid by USAID to date:	\$2,203,535
Total Accrued Expenditures as of March 31, 2013:	\$2,848,903

The numbers in the table below reflect STbCU spending per category for this quarter, and show projected cumulative spending through the end of March 31, 2013.

Project Objectives	January 2013 (Actual)	February 2013 (Actual)		FY 2013 Quarter 2 Total	Total Accrued by March 31, 2013
Objective 1	\$122,143	\$77,769		\$315,086	\$854,671
Objective 2	\$81,428	\$51,846		\$210,056	\$567,781
Objective 3	\$101,786	\$64,807		\$166,593	\$712,223
Objective 4	\$101,785	\$64,807		\$166,593	\$712,223
Total	\$407,142	\$259,229		\$858,328	\$2,848,903

C. SCHEDULES

Due to the liquidation of the TB Control Center, the MOH entity responsible for NTP program implementation and the Project's official recipient, we expect delays in several central-level activities, such as the procurement of GeneXpert, conducting DRS, and the creation of the TB Training and Information Resource Center. Additionally, the MOH order on DRS was considerably delayed, which caused a need for the Project to reschedule the DRS pilot in the Kharkiv region from April to the end of May. Currently, the implementation schedules for DRS training in the pilot oblast, which is planned for the end of May, and patients' recruitment, which will start in June, has the concurrence of the State Service and WHO.

Also as agreed with all parties, the D-TEK study tour will take place in the next quarter provided that the Project will be able to conduct a site visit to the DTEK-supported medical facility beforehand and conduct the necessary analysis. In March 2013, new TB and MDR-TB guidelines were approved by MOH Ukraine, and the State Service and UCDC requested that the STbCU project revise training materials accordingly. For this reason, two trainings, which had been planned for PHC practitioners in March, will take place at the end of April.

D. CHALLENGES

The recently-established UCDC is not fully functional as yet; thus, there is a lack of coordination between TB and HIV services, as well as additional confusion in coordination within TB services at central and local levels. This is hampering implementation of TB control activities, including the integration between PHC, HIV and TB services, drug management, and M&E at the regional level.

Moreover, the STbCU project faces the added challenge of ensuring the continuance of its legal registration status, given that the liquidated TB Control Center was the Project's previous recipient. Nevertheless, STbCU reached an agreement with UCDC to be the Project's new recipient, and currently, STbCU is negotiating with the UCDC on MoU content and parties' responsibilities. The procurement of GeneXpert equipment has also been delayed on account of this issue.

E. PLANS FOR THE NEXT QUARTER

Below are some planned activities for the next quarter.

At the national level:

Continued technical assistance to MOH:

- Promote creation of Mentoring and Evaluation Working Group under the MOH
- Support the work of restored MOH Working Group (WG) on Education
- Promote early revision of the new TB and MDR TB protocol
- Promote development of guidelines on EQA of laboratory culture, drug resistance testing
- Influence the national Working Group meetings to develop guidelines on TB IC in laboratories.

In USAID-supported regions:

- Continue educational activities on STOP TB including 5-days trainings on TB detection and TB case management, 5-days trainings TB microscopy, 5-days training on IC; workshops and seminars and local working group meetings on DOTS, EQA, MDR TB, TB-HIV, PAL.
- Start mentoring visits as a part of cascade training approach for healthcare providers in Dnipropetrovsk oblast as part of the Center of Excellence program.
- Support routine supervision and mentoring visits to TB and PHC facilities TB laboratories of selected rayons by team of national and regional experts
- In cooperation with USAID SIAPS project provide support to TB facilities in improving data in E-TB Manager.
- Under leadership of WHO and MOH provide support to DRS (distribute procured supplies, support DRS-related field visits, conduct DRS training in pilot oblast)
- Negotiate with UCDC with regard GeneXpert procurement: UCDC should take responsibility to be a recipient and deal with all necessary procurement-related procedures
- Launch grant program.
- In cooperation with D-TEK conduct assessment visit to medical facilities of mining industry, finalize study tour program and provide industrial doctors with training on TB detection and treatment among TB high-risk groups.
- Continue developing information, education and communication (IEC) materials based on the results of knowledge gaps analysis performed in Q3:
 - For doctors: TB detection algorithm, Ziehl-Neelsen smear staining, respiratory protection, principles of administrative TB infection control for doctors, TB treatment (standard regimes, side effects management), tutorial video on TB detection and case management
 - For patients: sputum collection procedure, cough hygiene, phases of treatment
- Conduct series partners' meeting on TB Training and Information Resource Center establishment, identify host organization, etc.
- Cooperate with partner projects and organization such as DTEK, "Obolon" factory, etc. to promote TB-related ACSM activities.
- Launch and promote STbCU website