



TUBERCULOSIS PREVENTION PROJECT

FY 2012: Annual Report
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Submitted to:

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LIST OF ACRONYMS

ACSM	Advocacy, Communications, and Social Mobilization
AFB	Acid- Fast Bacilli
AIDS	Acquired Immune Deficiency Syndrome
AOTR	Agreement Officer's Technical Representative
BCC	Behavior Change Communications
BCG	Bacille Calmette-Guerin
CCM	Country Coordinating Mechanism
CDR	Case Detection Rate
CME	Continuing Medical Education
CPD	Continuous Professional Development
CPF	Continuous Professional Feedback
DOTS	Directly Observed Treatment Short-course Strategy
DR TB	Drug Resistant Tuberculosis
DQA	Data Quality Audit
DST	Drug Sensitivity Testing
e-MIS	e-Health management information system
EC	European Commission
EDR	Electronic Drug Register
EQA	External Quality Assurance
EURACT	European Academy of Teachers in General Practice and Family Medicine
FDC	Fixed Dose Combination
FM	Family Medicine
FP	Family Physicians
GFATM	Global Fund to Fight AIDS, TB, and Malaria
GFMA	Georgia Family Medicine Association
GF	Global Fund
GMCU	Georgian Maternal and Child Care Union
GPN	General Practice Nurse
GHI	Global Health Initiative
GLC	Green Light Committee
GOG	Government of Georgia
GP	General Practitioner
GSC	Grants Selection Committee
HBC	High Burden Country
HC	Health Center
HCI	Health Care Improvement Project
HIS	Health Information System
HIV	Human immunodeficiency virus
HMIS	Health Management Information System
HSSP	Health Systems Strengthening Project
HPDP	Health Promotion and Disease Prevention
HR	Human Resources
IC	Infection Control
IEE	Initial Environmental Examination
IUATLD	International Union against Tuberculosis and Lung Disease
KAP	Knowledge, Attitudes, and Practices
MCQ	Multiple Choice Questionnaire
MDG	Millennium Development Goals
MDR-TB	Multidrug-resistant Tuberculosis
M&E	Monitoring and Evaluation
MoE	Ministry of Education
MoLHSA	Ministry of Labour, Health and Social Affairs of Georgia
MoCLA	Ministry of Corrections and Legal Assistance of Georgia



MoU	Memorandum of Understanding
NCDCPH	National Center of Disease Control and Public Health
NCTLD	National Center for Tuberculosis and Lung Disease
NGO	Non-governmental Organization
NTP	National Tuberculosis Program
OR	Operational Research
PCP	Primary Care Provider
PHC	Primary Health Care
PMDT	Programmatic Management of Drug-Resistant TB
PMIS	Project Management Information System
PMP	Performance Monitoring Plan
PPM	Public Private Mix
PR	Principal Recipient
PSA	Public Service Announcement
QA	Quality Assurance
QI	Quality Improvement
RFA	Request for Applications
SLD	Second Line Drugs
TAT	Turnaround Time
TB	Tuberculosis
TNA	Training Needs Assessment
TPP	Tuberculosis Prevention Project, USAID Georgia
TSMU	Tbilisi State Medical University
TSR	Treatment Success Rate
TST	Tuberculin Skin Test
URC	University Research Co., LLC
USAID	United States Agency for International Development
USG	United States Government
VCT	Voluntary Counseling and Testing
WONCA	World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians
XDR-TB	Extensively Drug-Resistant Tuberculosis



I. Executive Summary

This report outlines activities undertaken within the Year 1 of the USAID Tuberculosis Prevention Project (TPP) implementation from September 27th 2011 to September 28th 2012. During Year 1 the project made significant steps forward and reached tangible results described below.

Key milestones under each objectives of this period include:

- *Objective 1: Improve early detection of suspected tuberculosis (TB) Cases*
 - Primary care providers' training needs assessment was conducted and findings disseminated to key stakeholders
 - 420 practitioners (127 FPs and 126 nurses from Samegrelo and 81 family physicians (FPs) and 86 nurses in Adjara) working within "My Family Clinic" network were trained in "Early Detection and Management of TB at PHC level"
 - Job aids on TB detection was developed and disseminated to FPs and nurses
 - Performance appraisal tool for family medicine practitioners in TB service delivery was developed and piloted.
 - TB Knowledge, Attitudes, and Practices (KAP) survey was conducted
 - The project Advocacy, Communications and Social Mobilization (ACSM) strategy developed
 - Two communication campaigns implemented including the project launch attended by high level USG and GoG officials and World TB Day events with active involvement of TB professionals and medical students

- *Objective 2: Strengthen the quality of full implementation of DOTS and DOTS plus*
 - Situation analyses on integration of TB services into general health facilities conducted
 - Local and international technical assistance was mobilized to assist in elaboration the National TB Strategy and action plan for 2013 – 2015
 - Four quality improvement collaboratives were established within the private service delivery networks: My Family Clinic, Geo-Hospitals, Medical Park-Georgia and Medalfa TB management guideline and related protocols were developed and a broad professional consultative process initiated
 - TB care quality indicators for accreditation of TB facilities drafted
 - Journal Club for TB specialists with quarterly meeting agenda established
 - TPP identified three recipients of small grants: Georgia Nurses Association, Partnership for Social Initiatives and Welfare Foundation to implement projects aimed at improving access to, demand for and quality of TB services

- *Objective 3: Provide limited assistance to recently established private treatment sites nationwide in updating physical infrastructure to meet TB standards and to improve infection control*
 - TB service points assessment conducted across the country to identify major gaps in terms of infrastructure adjustment and other needs that emerge as a result of organizational merging of TB and general health facilities
 - Engineering assessment of TB service points conducted across the country to identify major gaps in terms of infrastructure adjustment and ventilation needs that emerge as a result of relocation of TB services into general health facilities.



II. Introduction

A. USAID Georgia Tuberculosis Prevention Project Objectives

The USAID Georgia Tuberculosis Prevention Project (TPP) is a four-year project, which aims to contribute to achieving the overall USAID/Georgia and Government of Georgia's objective to **reduce the number of all tuberculosis (TB) cases in the country, thereby achieving its Millennium Development Goals (MDGs)**. The project goal will be achieved through the following three objectives:

- *Objective 1: Improve early detection of TB suspected cases in general health facilities;*

In accordance to the International Standards for Tuberculosis Care (ISTC) the timely detection of TB Suspected cases is an important public health responsibility of all health practitioners. The rate of TB case detection mainly depends on the correct management of TB Suspect Cases in all health care facilities, especially at Primary Health Care (PHC) level. Early detection of TB Suspected cases in PHC facilities is the key point of successful TB Management. Therefore, the main objective of USAID/Georgia TPP is to improve early detection of suspected TB Cases in general and PHC facilities by strengthening capacity of health providers in TB management. This is achieved through training interventions which will aim to ensure that front-line health workers can timely identify and correctly manage TB cases in scope of their competencies.

- *Objective 2: Strengthen the quality of full implementation of Directly Observed Treatment Short-course Strategy (DOTS) and DOTS plus nationwide;*

Within the new context of reform, where private insurance companies and private service providers are emerging as a key players in service provision, private sector providers need to be fully engaged in TB screening, treatment or referrals. Evidence suggests that failure to involve all care providers used by TB suspects and patients hampers case detection, delays diagnosis, leads to inappropriate and incomplete treatment, contributes to increasing drug resistance and places an unnecessary financial burden on patients. Systematic involvement of all relevant health care providers in TB control promotes the use of ISTC and achievement of national and global TB control targets.

TPP is strengthening the full implementation of DOTS and DOTS plus nationwide to ensure that providers routinely adhere to effective, standardized treatment guidelines, as a means to improve treatment outcomes and reduce drug resistance. The project used training, technical assistance and continuous performance feedback to enhance the capacity of health care workers, and also develop health workers capacity to support patients through treatment completion. In addition to provider capacity, the project addressed health sector issues related to supporting quality DOTS, including support to strengthen policy environment and program management, engage all providers in providing quality DOTS, and expand partnerships with communities and non-government organizations (NGOs) to support delivery of TB services.

- *Objective 3: Provide limited assistance to recently established private treatment sites nationwide in updating physical infrastructure to meet TB best practice standards, and to improve infection control.*



As a result of ongoing reform interventions, the majority of the district and regional TB clinics and dispensaries have recently been integrated into private general and multi-profile hospitals and primary care clinics. The integration TB services into general health clinics required joint planning by the Ministry of Labour, Health and Social Affairs (MoLHSA), facility owners and the project team for adjusting physical infrastructure as necessary, introducing policies and standards to comprehensively address the specific needs of TB patients in general care settings.

B. Overview of Activities/ Results

In Year One, the project team implemented activities that will form firm foundations for the future progress in improving quality of TB services in the country. The TPP team has worked closely with MoLHSA, private hospitals and outpatient clinic networks, Family Medicine and TB specialists' professional associations to ensure a smooth transition from vertical, purely state funded and implemented model to the new integrated model with increasing role of private stakeholders.

The TPP team established close working relationship with five private health service provider networks (with more than 50 TB service points across the country) to assist them in identifying various needs that should be met for adequate provision of TB services under the organizational umbrella of the general hospital or outpatient clinic. The technical areas addressed during this collaboration include discussing infrastructure adjustment needs to meet infection control standards; planning for investments in new hospital buildings for improved ventilation systems that is critical to avoid nosocomial transmission of TB; encouraging team building and introducing effective cooperation modes between TB and other specialists teams; introducing quality improvement tools for regular evaluation of quality of TB services; capacity building needs of TB specialists and primary care providers which are now part of the big private hospital-outpatient network.

In order to encourage a greater involvement of primary care providers in TB early detection and community based follow-up USAID TPP in close collaboration with the Global Fund (GF) TB project designed the training module on early TB detection and management in general practice. The training has been delivered by the Georgia Family Medicine Association (GFMA) and the Association of TB and Lung Specialists. In Year-1, 420 FPs and nurses took the course. This initiative supports both capacity building of local providers as well as strengthening professional bodies. TPP will employ adequate tools for continuous performance evaluation and professional feedback to training professionals to ensure sustainability of these efforts.

As requested by the Country Coordinating Mechanism (CCM), the TPP set up arrangements to support elaboration of the National TB Strategy and action plan for 2013-2015. The TPP director has been leading the Strategy working group composed of the National Stakeholders established under the auspices of CCM. This strategy will be endorsed by the CCM. It will serve as a road map for national and international stakeholders in planning and implementing specific activities aimed at reducing TB burden.

In Year 1 the TPP has initiated various activities aimed at achieving sustainable positive changes in quality of TB services:

- (i) TPP team supported development of the evidence-based TB care guideline, which is based on latest the World Health Organization (WHO) guides. This initiative is led by the local professional experts. However, TPP team has facilitated the process to ensure that the guideline is developed according to the



international methodology and meets quality standards. The process helped to build capacity of local professionals in developing evidence-based tools for improving quality of care. The guideline will be accredited by the State Accreditation Board and will serve as a quality evaluation tool for the Medical Regulatory Agency.

- (ii) TPP has established four quality improvement collaboratives within large private networks. The primary focus for these collaboratives will be TB care. This initiative will improve understanding of the concept of quality and quality improvement tools among the health professionals and thus contribute towards strengthening internal quality improvement systems not for TB only but for other areas. Private Network owners are advised to formally establish quality teams at each facility level. TPP team will provide support in elaborating internal operational procedures and manuals for those teams.

Key results of this period include are outlined in Table 1.

Table 1. Key results of USAID Georgia TB Prevention Project in FY2012

Objectives	Results
<p>Objective 1: Improve early detection of suspected tuberculosis (TB) Cases</p>	<ul style="list-style-type: none"> • Primary care providers’ training needs assessment was conducted and findings disseminated to key stakeholders • 420 practitioners (127 FPs and 126 nurses from Samegrelo and 81 FPs and 86 nurses in Adjara) working within “My Family Clinic” network were trained in “Early Detection and Management of TB at PHC level” • Job aids on TB detection was developed and disseminated to 650 FPs and nurses in Adjara and Samegrelo regions, 30 job aids were disseminated among members of the Georgia Family Medicine Association in Tbilisi • Performance appraisal tool for family medicine practitioners in TB service delivery was developed and piloted. • TB Knowledge, Attitudes, and Practices (KAP) survey was conducted • The project ACSM strategy developed • Two communication campaigns implemented <ul style="list-style-type: none"> ○ The Project Launch event attended by USG and GOG representative ○ World TB day campaign on March 24th
<p>Objective 2: Strengthen the quality of full implementation of DOTS and DOTS plus</p>	<ul style="list-style-type: none"> • Situation analyses on integration of TB services into general health facilities conducted • Local and international technical assistance was mobilized to assist in elaboration the National TB Strategy and action plan for 2013-2015 • Four quality improvement collaboratives were established within the private service delivery networks (“My Family Clinic”, “Geo-Hospitals”, “MedicalPark-Georgia” “Medalfa”). Priority areas to be addressed will be defined on the basis of the updated TB management guideline recommendations in by November 2012. • TB management guideline and related protocols were developed and a broad professional consultative process initiated • TB care quality indicators for accreditation of TB facilities drafted



	<ul style="list-style-type: none"> • Journal Club for TB specialists with quarterly meeting agenda established • TPP identified three small grantees: Georgia Nurses Association, Partnership for Social Initiatives and Welfare Foundation to implement projects aimed at improving access to, demand for and quality of TB services
<p><i>Objective 3: Provide limited assistance to recently established private treatment sites nationwide in updating physical infrastructure to meet TB standards and to improve infection control</i></p>	<ul style="list-style-type: none"> • 65 TB service points assessed across the country to identify major gaps in terms of infrastructure adjustment and other needs that emerge as a result of organizational merging of TB and general health facilities • Engineering assessment of TB service points conducted across the country to identify major gaps in terms of infrastructure adjustment and ventilation needs that emerge as a result of relocation of TB services into general health facilities.

III. Results by Objective

A. **Objective 1: Improve Early Detection of Suspected TB Cases**

1. **Conducted a Training Needs Assessment of Primary Care Providers**

In accordance to the ISTC, the timely detection of TB Suspected Cases is an important public health responsibility of all health practitioners. The rate of TB case detection mainly depends on the correct management of TB Suspect Cases in all health care facilities, especially at PHC level. Early detection of TB Suspected cases in PHC facilities is the key point of successful TB Management. Therefore, the main objective of TPP in Georgia is to improve early detection of Suspected TB Cases in general/PHC facilities. Training for family physicians and nurses on TB control is one of the key activities to achieve above mentioned objective.

TPP planned to build competencies of FPs and nurses in TB Suspected Case Management to improve early detection of suspected TB cases. This is accomplished by the implementation of modern training methodology and innovative approaches. The success of a training program can be assured only by the systematic application of certain basic principles that help determine the aim and scope of the training, its implementation, and application in the workplace. A trainings needs assessment was conducted as a necessary first step to develop relevant and effective training programs.

The Training Needs Assessment was designed to meet the following objectives:

- Identify TB topics that primary care professionals, family physicians and nurses in the various regions of country self-report as training and educational needs;
- Identify existing degree of knowledge, skills, and the attitudinal characteristics of family physicians and nurses in TB case management;
- Determine the most commonly used training and education delivery methods for family physicians and nurses;
- Describe clinical and programmatic training and education materials and courses currently available in Georgia;
- Determine the preferred training and education delivery methods;



- Assess the web-based training and education technologies available to family physicians and nurses, as well as existing training systems/ modalities in use in other high burden countries.

The training needs assessment was based on the following tools and approaches:

1. Desk Review of exiting training modules and materials designed in previous years with support of USAID and GF financed training programs. The purpose of the review was to explore training objectives, training outcomes and identifying gaps to be covered during the future trainings.
2. Key informant interviews captured individuals involved in planning, design and implementation of the training programs for FPs and nurses.
3. Site visits and specifically designed PHC provider questionnaire survey was conducted in a randomly selected group comprised of 208 FPs and 204 Nurses at 29 primary care facilities in 8 regions including Tbilisi. In addition to the self-assessment questionnaire, the multiple choice questions (MCQs) were used to measure the knowledge gap and identify specific clinical issues to be addressed in the up-coming training programs for FPs and nurses

The analysis revealed that despite possessing a wide range of TB care-related competencies, FPs and nurses still play a limited role in TB detection and follow-up. FPs, as front line professionals are often the first point of contact with health care services for patients with TB symptoms. Therefore, FPs can play a critical role in early recognition and timely referral of TB. Currently, poor linkages between the primary and secondary care services do not allow for adequate information flow from and to FPs and TB specialists. FPs does not necessarily receive information from TB specialists about a referred patient on whether or not the TB diagnosis is confirmed and treatment is initiated. Often during the intensive and continuation phases of DOT is provided by TB specialist. Some patients return to the community and receive treatment from a village primary care nurse (most of whom have had a specific DOT training). The latter is usually closely supervised by the rayon level TB specialist.

In terms of specific training needs, the survey found that FPs and nurses are very positive about updating their skills and knowledge in the area of TB detection and management in general health care settings. Physicians and nurses regarded technical knowledge in areas such as etiology and pathogenesis of TB as least important; and state that training should be aimed at improving their skills of early TB detection, decision making on referral and follow-up. Although training programs supported by the GF and USAID projects were very comprehensive and elaborated, it was noted that revisions and updates to the trainings are needed. The training of PHC providers will need to be concise and focus on their expected competencies such as:

- a) Screening patients for signs and symptoms of TB;
- b) The process and procedure for making patient referrals to TB services;
- c) Basic clinical monitoring of patients on TB therapy, including adverse effects and “red flags” indicating a need for immediate clinical intervention

The training needs assessment survey was presented to main stakeholders representing Georgian TB Physicians and Pulmonologists Association, GFMA, Georgia GF Projects Implementation Center. The presentation was followed by extensive discussion of findings and suggestions for revision of training curriculum currently used by the GF project “Ensuring Universal Access to Quality Treatment and Diagnosis of All Forms of Tuberculosis Including Drug-Resistant Tuberculosis. The leaders of Family Medicine (FM) and TB specialist



professional groups expressed willingness to jointly plan and deliver training programs for FM practitioners. This will strengthen linkages between primary care and TB specialist services and building effective referral programs.



2. Trained PHC staff to recognize TB symptoms and test suspected cases

Post-graduate training of family medicine practitioners in Georgia follows the educational agenda of the European Academy of Teachers in General Practice and Family Medicine (EURACT) and affirms that general practitioners and FPs are primarily responsible for the provision of comprehensive and continuing care to every individual seeking medical care irrespective of age, sex and illness. The competency framework for FPs and general practice nurses adopted by the MoLHSA mandates them to provide comprehensive TB care in the community including early identification, referral and follow-up. Namely, the retraining program for FPs stipulates that the family medicine physician must manage primary contacts with patients who have TB related problems. The family medicine physician must have empathy and compassion with the patient, be able to negotiate a management plan with the patient and be able to coordinate care with other primary health care professionals and know when referral to a specialist service is necessary.

In order to strengthen capacity of primary care providers in early detection and management of TB suspect cases URC established an agreement with the GFMA to provide training for family physicians and general practice nurses. In order to support both capacity building of local providers and strengthening linkages between generalists and TB specialist services, the GFMA is closely collaborating with the Association of TB and Lung Specialists. The agreement set the following objectives:

1. Analyze specific learning needs of primary care providers and tailor training programs accordingly;
2. Implement training interventions in order to improve a knowledge base and skills of family physicians and nurses for TB care at primary care level;
3. Assess immediate results of the training courses and come up with long-term strategies for continuous professional development for family medicine practitioners.

Based on the training needs assessment findings the training was focused on identification of key TB risk factors, understanding and acknowledging the importance of TB screening and rapid TB diagnosis, especially for suspected multidrug-resistant TB (MDR-TB) cases, and provision of appropriate treatment regimen.

In collaboration with TPP, GFMA selected 12 TB and FP and nurse training experts through open competition. Senior FP and TB training experts conducted a number of training sessions for other trainers to ensure standardization in skills and approaches. The experts also revised training modules and materials elaborated within the GF Round 10 TB care project according to the survey findings from the training needs assessment. The GFMA trainers volunteered their time and conducted the orientation session for 10 trainers involved in the GF project on June 9th and it has been agreed that the training will expand to other regions with the GF support. Training materials were uploaded on the GFMA website <http://www.gfma.ge/ucgan.php>. The training sessions were organized in Batumi and Zugdidi in July 2012. In total, 127 FPs and 126 nurses [totally 253, more than 240 (100%)] from Samegrelo region and 81 family physicians and 86 nurses [totally 167, more than 160 (100%)] from Adjara participated in trainings.

The TPP team provided monitoring of training in both regions, attended 10 group sessions and interviewed several trainees. The selected venues were convenient, suitably equipped for presentations and provided adequate environment for training. The trainers and trainees were provided with the training materials, stationary, and other necessary training aids. Interactive training methods were used and the participants were fully engaged.



Feedback was provided via a training evaluation form completed by participants. The received feedback was most supportive of the training and appreciative of both the information provided and the way in which it was delivered. Results of the satisfaction survey are given in Annex 1.

Overall, the training course was successful and will ensure improvement of early detection and management of TB in general health practice. The training will continue in the fall to ensure full coverage of FPs and nurses practicing in Adjara and Samegrelo. In addition, the training will be extended to FPs and nurses in Imereti and Mtskheta-Mtianeti

3. Developed innovative strategies for ongoing support of PCP to refer TB suspect cases to TB specialists

a) Job Aids

The experience demonstrates that training alone does not result in health care providers behavior change and continuous professional support is required to achieve positive changes in their performance. It is also well known that jobs aids effectively complement training activities and assist providers to perform better by making information readily available at the time of the patient-provider encounter. TPP technical team developed a user-friendly job aid for family physicians and general practice nurses on the basis of the commonly acknowledged criteria for an effective job aid, namely:

- Stores information, instructions, options, or perspectives in a form that is external to the worker
- Guides the performance of a task in an actual situation in the correct sequence
- Gives clear signals for when to take some kind of action
- Calls attention to important information, using nonverbal devices when appropriate
- Contains sufficient space for any required written responses

The job aid addressed the main steps for timely identification and management of TB at primary health care level, namely: algorithm for TB suspect management, TB signs and symptoms, TB risk groups, referral to TB specialist, TB case management including counseling to improve adherence and infection control. 1000 job aids were printed and distributed.

b) Clinical Case Discussion

In order to deepen TB – related knowledge and encourage analytical and critical thinking, the TPP team developed case studies which were posted to the GFMA web-site. The TPP team collected TB – related clinical cases from primary care providers (PCPs). Cases were then analyzed by the TB technical team and clinical discussion prepared.

By using the real information from the country, the case studies brought to life the complexities of TB service provision and helped practitioners engage and learn by giving them relevant context. The TPP team prepared 8 clinical case presentations and uploaded at the GFMA web-site <http://www.gfma.ge/shemtxveva.php>. The TPP will obtain PCPs feedback on this initiative early November and will continue presenting case studies accordingly.



4. Provided performance appraisal and continuous professional feedback to FM practitioners in TB service delivery

The performance appraisal of FPs and nurses aims to improve quality of TB care by evaluating the degree to which family physicians and nurses can translate knowledge received through formal training programs into practice. It also assesses if their performance is in line with international and national evidence-based recommendations on TB care.

Concerned with performance of FPs and nurses in the TB service delivery, the TPP team elaborated a focused module and tools reflecting TB specific aspects. The module can be used specifically for the TB related performance appraisal. Moreover, it can also be integrated into the broader FPs and nurse's performance evaluation framework implemented by the GFMA. In order to ensure a smooth integration into the overall FM performance evaluation toolkit, the TPP made it more TB specific. It modified questions and added some important outcome indicators to measure achievements of primary care teams against selected quality standards. The performance appraisal will include both evaluating the process of care through observations and reviewing medical records as well as outcomes. In addition, the reviewers will provide on the spot feedback and mentoring for primary care staff.

The **process evaluation** will include the following aspects:

- Comprehensive history taking and TB risk assessment
- Patient counseling on a) the importance of the timely referral; b) the importance of adhering to treatment regimen; and c) screening of family members/ close contacts
- Reporting and recording (completeness of referral form, comprehensive records in medical charts including the list of TB risk factors, onset and duration of symptoms)
Note: The completeness of DOT forms as required by the National TB Program is assessed within the NTP supervision program and will not be included in the performance appraisal module
- Management of TB drug side effects
- Team working and care coordination with local nurses and district level TB teams

The observed practice has to be evaluated against quality standards set by the latest National TB Management Guidelines and protocols. If no national guideline exists than the international sources should be consulted.

The following **outcome indicators**, which best reflect timeliness and good organization of referral, were selected:

- Percentage of patients presenting with TB signs and symptoms referred from FPs to a TB specialist
- Percentage of patients referred to TB services within 2 weeks of onset of symptoms
- Percentage of patients prescribed specific TB drugs without diagnosis being confirmed.
- Percentage of patients receiving regular DOT
- Treatment success rate (i.e. cure and treatment completion)



Appraisal will require a prior preparation by both the appraiser and appraisee. The appraiser should be qualified TB or Family Medicine specialist trained/experienced in conducting performance evaluation visits and professional feedback.

Tools were piloted by the TPP team before recommended for a wider use. TPP will organize a training course for FM trainers in TB appraisal module and will encourage the GFMA leadership to make this module an integral part of the overall appraisal process.

5. Conducted TB KAP Survey to Inform ACSM Activities

The TPP partnered with the NGO with the Georgian Maternal and Child Care Union (GMCU) to conduct Knowledge, Attitude and Practice (KAP) survey in order to identify knowledge and practice gaps and establish baseline levels of knowledge, attitude and behavior about Tuberculosis (TB).

The goal of the survey was to evaluate knowledge, attitudes and practices about TB disease and its management in Georgia. Specific objectives of the survey included:

- Collection of the data on awareness, knowledge, attitude and practices about TB in different target populations.
- Determination of possible barriers and favorable factors that influence knowledge, attitudes and practices related to TB.
- Revealing preferred sources of information on TB and determine the most trusted and popular channels for Ad impact.
- Evaluation of the attitudes and experience of TB related stigma and discrimination.

Cross - sectional study design was used for the survey. In order to be nationally representative the survey has been conducted in Tbilisi, Adjara, Samegrelo, Imereti, Kvemo-Kartli and Kakheti regions of Georgia. Target population for the survey included the following groups: individuals recently released from prison, drug users, alcohol users, post TB patients (both cured and default), contacts of active TB cases, TB patients currently on treatment; patients with HIV/AIDS, patients with diabetes mellitus, patients on dialysis (as immunocompromised group), health care providers and general public. In total 1599 study participants were investigated. Data were collected through face-to-face individual interviews by specially designed questionnaires.

The recently conducted KAP survey showed a low knowledge level, high stigma and inappropriate health seeking behavior among those at high risk of TB. TPP and GMCU organized a conference on August 31st attended by various stakeholders to share the KAP survey finding and come up with the recommendations on required actions

The full survey reports are available in English and Georgian languages. The TPP prepared the survey briefs that will be disseminated to all stakeholders in October 2012.



6. Advocacy, Communication, and Social Mobilization (ACSM) Strategy

Based on KAP survey findings, ACSM Strategy for TPP was developed to improve planning, coordination, implementation and monitoring of all ACSM activities within the frame of the project.

The strategy document outlines the strategic focus of ACSM and includes priority objectives, specific activities, a monitoring and evaluation framework and expected outcomes.

Aligned with the National Tuberculosis Program (NTP)'s ACSM goals and objectives, the TPP ACSM strategy has been designed to implement a multi-level approach combining activities at the national and community levels. It uses different communication channels to improve peoples' perceptions about causes, symptoms, transmission and prevention of TB and generate demand for utilization of TB services. A range of activities have been identified to support behavior change communication (BCC), community mobilization, advocacy, and mass media campaigns through TV, Radio, print and outdoor media as well as traditional media. The project will support development and distribution of Information, Education and Communication (IEC) materials to spread critical messages on TB.

This ACSM strategy intends to provide essential guidance in planning and implementing local level communication activities as well as national media campaigns to sensitize and motivate people for taking early action towards diagnosis and initiation of TB treatment.

The strategy incorporates a monitoring and evaluation (M&E) framework including appropriate indicators that will be used by the project and the implementing partners to monitor implementation and measure outcomes and impact of the ACSM activities.

7. Website Development

Communication through information technologies has played a key role in disseminating knowledge and information to the population. TPP has designed a website to become an effective tool to disseminate TB information. The website will assist in mobilizing political support and leadership for TB control strategies at all levels; empowering people affected by TB; improving case detection and boosting treatment adherence; and tackling stigma.

The overall goal of the website is to strengthen communication and interactions within TPP and with its stakeholders and wider community to facilitate achievement of project outcomes, gain project visibility and public support.

The website intends to meet the following objectives:

(1) highlight the project, its activities and accomplishments; (2) provide clinical and programmatic updates for policy makers and clinicians; (3) facilitate online learning and training for TB managers and providers; (4) highlight staff, qualities and strengths; (5) use rich media content; (6) reach target audiences to change behavior, disseminate tools and trainings; and (8) be easy to use and up-to-date.

Website concept notes were developed and several developer companies met to discuss terms and requirements. Based on the best offer "Visual Studio" was been selected to provide expert assistance to develop the TPP website. The content has been developed and uploaded (<http://visual.ge/tbp/>) and shared with the core stakeholders and recommended changes were incorporated. The site has been approved by USAID and will be launched in October 2012.



8. BCC/ACSM Activities

a) World TB Day

TPP team conducted various activities for World TB Day, March 24, 2012.

A consultation meeting with different faculty students, National Center for TB and Lung Disease and NCDC staff was held to test and refine slogan, messages and promo materials for the World TB day. The outcomes of the working meeting were:

- The Stop TB Partnership slogan for 2012 World TB day campaign “Stop TB in my Lifetime” was translated into Georgian language.
- Translated messages were refined and the last versions of all messages were developed.
- The design and text of promo materials, such as T-shirts, cups, flyers and posters were finalized.
- Total materials printed and distributed for World TB Day 2012: 70 T-shirts, 10 posters, 50 lanterns, 500 flyers, 1 banner.

The TPP team collaborated with the Tbilisi State Medical University (TSMU) to host a successful World TB Day Conference on March 23, 2012 with over 70 participants from different public and civil society organizations representing the country’s major players in public health. Attendants included representatives from the MoLHSA, USAID, professional medical organizations, National Center for Disease Control and Public Health (NCDCPH) and students from TSMU. These stakeholders discussed future goals and initiatives to raise awareness about TB. The participants agreed that collaborative effort is the critical success factor in the fight against TB.

Likewise, URC TPP and TSMU’s students organized a public procession to raise awareness of TB disease. The march took place on Saturday, March 24th, 2012. More than 50 people marched from the Tbilisi Music Hall to Freedom Square in downtown Tbilisi to raise awareness about TB. The students and other participants wore T-shirts with messages related to the impact of TB and multi-drug resistant (MDR)-TB in Georgia and distributed educational materials to pedestrians in the streets. World TB Day was concluded with the students creating a “human chain” to demonstrate their unity against TB in a main park of Tbilisi.

The event was reflected by the national and local TV companies and posted on partners’ websites (Please follow the links):

http://www.youtube.com/watch?v=7UJ3_5bbbqU;

<http://www.youtube.com/watch?v=q24ifWnYn0&feature=relmfu;>

<http://www.youtube.com/watch?v=rJnHBOac1P4&feature=relmfu;>

[http://news.ge/ge/news/story/8820-rivis-parkshi-tuberkulozis-saertashoriso-dgisadmi-midzgvnili-aqcia-gaimarta ;](http://news.ge/ge/news/story/8820-rivis-parkshi-tuberkulozis-saertashoriso-dgisadmi-midzgvnili-aqcia-gaimarta)

<http://www.ncdc.ge/index.php?do=fullmod&mid=348;>

<http://www.worldtbday.org/2012/03/>



b) The USAID Tuberculosis Prevention Project Launching

Georgia's First Lady and other national figures officially launched the TPP in Tbilisi on April 5, 2012. The First Lady of Georgia, Sandra Elisabeth Roelofs, U.S. Ambassador to Georgia John R. Bass; Minister of Labor, Health and Social Affairs Zurab Tchiaberashvili; Mission Director for the USAID programs in Georgia Stephen M. Haykin and the Director of the National Center for Disease Control and Public Health Nata Avaliani, attended the launch ceremony. Minister Tchiaberashvili announced that: "International partnership is especially important in this case of TB. As you know, the Global Fund (GF) has been working in the area, and now USAID has joined the collaborative effort.... We do welcome this initiative as TB represents a significant problem in many countries."

This event created a good platform for promoting stakeholder awareness in order to develop and build a shared understanding of the project objectives, the decision-making process, as well as expected outcomes.

The launch was highly publicized on all national and several local TV channels. See one of the reports at http://www.youtube.com/watch?v=bYt3ihOFByg&feature=player_embedded

B. Objective 2: Strengthening the Quality of Full Implementation of DOTS and DOTS plus

1. TB Integration into General Health Facilities in Georgia: Situational Analysis.

The recent changes undertaken for national integration of TB services into general health care facilities have the potential to provide increased access to TB care along with quality improvement in TB services, concern remains about the handling of TB by the PHC system and general in-patient and out-patient facilities. Currently, there are many stakeholders involved in TB control in Georgia - some public and some private - with varying degrees of TB experience and expertise. The situational analysis of the plan and progress for integrating TB care into PHC and for overall TB control in general became necessary next step.

The project engaged Dr. Jennifer Furin, field consultant of URC for a short-term consultancy to assist the project team to initiate activity strategies in key areas incorporating the best evidence and practice from global TB control programs. She worked with the TPP team to conduct a thorough assessment of current systems focusing on integration of TB within primary care services and assist to establish necessary tools and materials and activity plans.

Dr. Furin visited Georgia in February 4 - 20, 2012 to conduct a situational analysis of TB control at the national and regional levels (taking into account ongoing reform). The analyses focused on the following areas:

- Governance and organization of TB control programs
- Diagnostic and service delivery capacity
- TB care financing policies
- MDR patient information management system
- IC tools and processes at primary care level
- Existing quality assurance tools and checklists



The situational analysis resulted in:

- Identifying priority TB-related areas for immediate actions
- Providing recommendations for improved case management and follow-up
- Evaluating the infectious control processes in general health facilities and identifying ways to improve the process
- Reviewing the current MDR-patient information management system and providing inputs on how to use existing tools for improved case management and follow-up
- Assisting with the training needs assessment of primary care providers (PCP) and other cadre of health workers

2. National TB Strategy and Action Plan

In order to support the National efforts aimed at elaborating the National TB strategy and Action Plan for 2013-2015 URC selected and contracted five local experts with specific expertise relevant to priority strategic directions listed below:

- Effective governance of the National TB program and a role of key stakeholders in National TB response
- Promotion of active case finding in an integrated health care setting.
- Infection Control in health facilities with co-located general health and specialized TB services
- Access to and quality of TB preventive and treatment services
- TB ACSM

The international consultant Dr. Sarah Royce will provide technical guidance to the groups of local experts and provide her input in drafting the strategy and action plan. The TPP hosted the 1st meeting of the local experts on September 3, 2012. The meeting was dedicated to the analysis of current situation in regards with: laboratory network, structure of laboratory services with their functions and weaknesses of existed sputum transportation system, DOTS services in the country and the obstacles to high quality DOT in the civilian as well as in the penitentiary system, problems with shifting the functions among various stakeholders, infection control activities. Along with other national stakeholders, the TPP Chief of Party (CoP), Dr. Tamar Gabunia will attend the WHO regional meeting in Moldova (October 8-11) on TB strategic planning. The broad stakeholder consultative meeting will be held in mid-October. The TPP team will present findings of the situation analysis and facilitate agreement of strategic objectives to be articulated into the 2013-2015 strategic plan.

3. TB Management Guideline

The TPP team in close collaboration with the National Association of TB and Lung Specialists and MoLHSA continued work on evidence-based TB care guideline. The Guideline Development Group (GDG) composed of 15 members met three times in August and September. The guideline is based on the latest available sources such as:



- Guidelines for the programmatic management of drug-resistant tuberculosis, 2011 update (WHO)
- NICE clinical guideline 117., Developed by the National Collaborating Centre for Chronic Conditions and the Centre for Clinical Practice at NICE, Tuberculosis, Clinical diagnosis and management of tuberculosis, and measures for its prevention and control, This updates and replaces NICE clinical guideline 33., Issue date: March 2011.
- Treatment of tuberculosis: guidelines – 4th ed. WHO/HTM/TB/2009.420
- Guidelines for the programmatic management of drug-resistant tuberculosis: emergency update 2008. Geneva, World Health Organization, 2008 (WHO/HTM/TB/2008.402).

With support of TPP technical team the draft guideline and 10 protocols were developed and presented to wider audience for stakeholder input. The presentation was arranged on September 20, 2012 at National Center for Disease Control and Public Health. As a follow up, each participant received an electronic copy of the full version of the guideline and related protocols. TB professionals and other interested parties (e.g. managers, nurses, other specialists) can provide their feedback by October 20th by sending e-mail to the following address: GeorgiaTBGuideline@urc-chs.com. The guideline will be submitted to the National Guideline Accreditation Board for review and approval by the end of October 2012. The Global Fund TB project plans to support implementation of the guideline through training courses for TB specialists and nurses. The TPP will complement the implementation efforts by regular quality improvement collaborative meetings and strengthening facility level quality measurement/clinical audit systems.

4. Establishing Quality Improvement Collaboratives

The TPP intends to contribute towards improving quality of full implementation of DOTS and DOTS plus nationwide. The TPP will use the collaborative approach for rapid spread of improvements in health services. URC has successfully used this model in several TB and other health projects in many countries around the world. As part of a collaborative, a large number of health facilities are brought together at the regional/local level to solve TB problems and to achieve breakthrough or significant results. The package of interventions—covering providers, patients and the delivery system—are implemented for a period of time. Each facility chooses an area of focus that it considers to be affecting its program outcomes. Meetings are held at least once a quarter to review progress and identify other strategies to improve case detection and cure rates. The snow-ball effect is created as a result of sharing of knowledge with these facilities. This will allow for the expansion of improvements to other clinical and support areas or other districts requesting to participate in the program.

The TPP team developed the training package for the first learning session which was focused on quality concepts and quality improvement tools and systems. The TPP CoP conducted the training for the technical team and regional coordinators on the structure, content and methodology of the first learning package.

In July and August the TPP technical team and regional coordinators organize four learning session attended by “quality team” members from facilities providing TB services within My Family Clinic, Geo-Hospitals, Medical-Park Georgia and MedAlfa networks. The training aimed to sensitize health personnel and managers on importance of setting up a quality improvement



system and form a foundation for establishing facility level quality teams. The TPP team will organize a second round of the collaborative meetings in the fall to agree on TB care quality improvement objectives and define general processes for achieving desired outcomes.

5. Ongoing Support Activities to TB Professionals

In order to support professional development of TB specialists through disseminating evidence-based information and providing opportunities for professional discussions and experience sharing TPP technical team worked with the Association of TB and Lung Specialists to elaborate the annual agenda for quarterly professional meetings to ensure that these meetings are focused at and reflect the most important and challenging technical areas of the National TB Care program.

In Year 1, the TPP organized two quarterly “Journal Club” meetings for TB Specialists from the NCTLD, Abastumani TB Hospital, Zugdidi TB Hospital, Ltd. “Gormedi” TB services, Georgian TB Physicians and Pulmonologists Association and GFMA on March 22 and June 26 2012. The first meeting was devoted to TB palliative care related knowledge and experience. The second meeting addressed the theme “Multidrug-Resistant Tuberculosis (MDR-TB) – International Experience”.

The TPP team established a good working relationship with USAID regionally funded TB-HIV confection project implemented by PATH. The TPP regional coordinator participated in “Three I” Workshop held in Tbilisi. Three I’s (Intensified case finding, isoniazid preventive therapy and infection control) workshop reviewed current efforts, and provided specific technical presentations and discussions intended to stimulate thinking on how teams can move forward to improve TB/HIV and Three I’s services. Based on the knowledge and experience obtained at the training, TPP team will explore opportunities to incorporate this information in training modules designed for primary care professionals and TB specialists.

6. TPP’s Small Grants Program

Three organizations were selected within the framework of the small grants program initiated for local non-governmental and civil organizations to encourage their involvement in improving quality of TB services, increasing availability of and demand for TB Treatment. Georgia Nurses Association, Partnership for Social Initiatives and Welfare Foundation were recommended by the review committee composed of the TPP technical advisors and URC HQ experts for funding.

The TPP team organized a pre-award meeting on August 2, 2012 in order to provide short-listed prospective Grantees with background information on grantee and URC technical, monitoring, and financial responsibilities; review requirements for development work plans and M&E indicators; review financial reporting tools; troubleshoot challenges; and provide a forum where the NGO partners can meet the Project staff, who will be playing a greater role in overseeing NGO activities), URC field and headquarter staff, and other NGO grantees. As part of the pre-award process the TPP team visited prospective grantees offices to obtain information on accounting system and financial management capability.



Aims of proposed projects are as follows:

- Georgia Nurses Association: To strengthen the quality of TB services in Georgia by increasing the professionalization of nurse and to support of TB-service nurses to strengthen the quality of TB services in Georgia.
- Partnership for Social Initiatives: To build and strengthen linkages between health care facilities providing TB care and communities through active outreach by demonstration of how to enhance the effectiveness and efficiency of TB control by removing Georgia's private health system barriers and to demonstrate a new long-term equitable and sustainable model for TB control.
- Welfare Foundation: To improve TB treatment adherence and clinical outcomes through awareness rising among TB patients and capacity building of primary health care workers.

The contracts with grantees were signed and the implementation started in September 2012.

In order to support the implementation of the small grants program in the next year the TPP team organized a grant writing workshop for interested organizations on September 14th. Representatives of 12 NGOs attended the session. The TPP team provided comprehensive information including priorities in TB prevention and relevant technical information, useful for future proposal development: small grants program objectives; small grants application guidelines; proposal development; selection process and evaluation criteria; grantor and grantee responsibilities; cost sharing and financial management issues. Participants discussed different issues for concept papers in TB field and exchanged experience with each other.

7. TB Care Quality Standards

In line with the intention of the MoLHSA's to initiate accreditation of health care facilities (which has started from maternal and child care services), the TPP in close consultations with the Georgian TB Physicians and Pulmonologists Association, Physiology Department of Tbilisi State Medical University and National Center for TB and Lung Disease, and also USAID SUSTAIN project elaborated TB care quality standards. These standards define the performance expectations, structures, and processes that must be in place for an organization to provide safe, high-quality TB diagnoses and treatment.

The health facility certification/accreditation program in Georgia is on its very early stage of development. The project will collaborate closely with all involved parties and USAID partners to contribute towards institutionalization of the national accreditation program.

8. Health Management Information System

Since 2011, the MoLHSA of Georgia in close collaboration with USAID Health System Strengthening project team is developing a novel and quite innovative National Health Management Information System (HMIS) which will ensure electronic data exchange among MoLSHA, insurance companies, medical service providers and patients. This activity is aimed at developing the cooperative system for supporting government, population and all stakeholders



involved in health care system, in order to receive all needed information quickly and respond adequately.

The TPP team will use this momentum and will support MoLSHA in developing a TB Health Information System (HIS) module to support adequate programmatic data collection and analyses to inform the national program planning and policy making. It is essential that the TB database is compatible / complementary to other data systems in the MoLHSA e-health management information system (e-MIS).

As an initial step to design and develop software to store and process TB related data a meeting on developing TB HIS module was conducted at the National Center for Tuberculosis and Lung Disease (NCTBLD). Representatives from the NTP and USAID Health System Strengthening project attended the meeting. During the meeting the following issues were discussed: existing TB reporting and recoding system and its functions; merging of laboratory register to the main data set; functions and capabilities of existed TB hospital management database; lack of TB drugs information module in the national data base. All parties agreed that existing different data base require revision to meet complex information needs of the NTP. The TPP will explore this area further to identify the necessary variables for electronic data exchange, define business processes and come up with recommendations on the software package to support the system.

C. Objective 3: Provide Limited Assistance to Recently Established Private Treatment Sites Nationwide in Updating Physical Infrastructure to meet TB Best Standards and to Improve Infection Control

1. Assessment of TB Care Services

The MoLHSA initiated the assessment of TB care services, which was conducted with the support of the USAID Georgia TPP and captures evaluation of TB management capacity throughout the country. The assessment aims at exploring TB management services in Georgia, in particular evaluating the following aspects:

- A. To assess if TB services were relocated into the adequate physical Infrastructure in terms of adequacy of working environment and compliance with infection control standards.
- B. To evaluate the degree to which TB service providers felt motivated to keep working with new private entities and thus become a part of larger service delivery organizations.
- C. To identify gaps/weaknesses in implementation of the National TB Program such as availability of quality assurance tools and systems at facility level, linkages between primary and secondary levels and also between different levels of specialized TB services; sputum and drug logistics.

The assessment captured all the regions of Georgia and was conducted in April – May 2012 by the staff of the MoLHSA, USAID TPP and NCDCPH (represented by regional coordinators). About one hour was devoted to each site assessment.

Selection of the assessment criteria was based on the Georgian legislation related to regulation of high-risk activity and international standards of TB control. Other important aspects of adequate TB care provision were included based on international recommendations and standards. The following areas were covered: physical infrastructure, health care staff, sputum logistics, drug logistics, health service quality, recording/reporting and information management.



The assessment findings indicate that:

1. Physical infrastructure of TB services needs significant improvement. Inadequate infrastructure dramatically increases the risk of TB transmission in general health facilities. Thus, this issue requires immediate response.
2. Infection control measures should be reinforced in health centers, where TB patients receive diagnostic or any other services. Infection control measures should completely meet the legal requirements.
3. Updating sensitive and resistant TB management guidelines and protocols and their dissemination in the TB service network, and also encouraging continuous professional development (especially in-service training) are recommended in order to assure health service quality.
4. In order to facilitate effective implementation of the state TB program, it is recommended to provide the program document, explanatory note and outpatient treatment modules for every physician, nurse and facility manager.
5. Communication campaigns should be planned and implemented to reduce stigma and rise public awareness

D. Engineering Assessment of TB Care Services

The systemic changes to the delivery of TB and MDR – TB services posed considerable challenges to managers of private facilities, health providers, and patients. A mapping exercise was conducted jointly by MoLHSA and USAID TB revealed that the private clinics were ill prepared to accommodate specific needs of TB patients.

The majority of TB care services have minimum equipment and furniture. Although there are cases where TB cabinet has no procedure/examination couch to provide injections, refrigerator to store drugs and bactericidal (UV) lights (or cannot use them due to the lack of electricity). Only a few facilities have capacity to provide DOT and DOT+ services in isolation from each other; a sputum collection room is either not available and in any weather conditions the patients have to collect sputum outdoors, or if such room exists – its location in the facility or equipment does not meet infection control requirements; Some TB care sites have no sputum storage area and equipment; Health care staff are not always provided with N95 respirators, or do not use them; Not all facilities provide the patients with the surgical masks when they move around (both within TB sector and in non TB care area).

Following the mapping exercise, the MoLHSA has organized series of meetings with private facility managers to discuss potential solutions to the infrastructure related problems. As a result some owners found isolated spaces in the new hospital buildings for locating TB services. Others at 15-bed hospitals failed to identify a room for TB teams with a separate entrance, adequate water supply and utilities. The infectious wards that hospitals are mandated to keep unoccupied unless required for those with suspected severe infections turned out to be the only place in which TB service could be accommodated without threatening the rest of the hospital community and patients.

This scenario of relocating TB services raised additional need of adjusting hospital infrastructure and organizing an alternative infectious control ward with an adequate ventilation system. This is directly determined by the necessity of accommodating TB services. This should be treated as integral part of the whole infrastructure adjustment package. Likewise, the private owners have already experienced some loss and increased financial pressure because of incorporating TB services into their service delivery package. TB care has never been shown to be profitable and the need to increasingly invest in TB services may demotivate private businesses to provide



adequate support to TB teams and remain committed to continuous quality improvement for better TB services.

A consultant contracted by TPP conducted a facility based engineering assessment in July – September 2012 and provided recommendations on physical infrastructure adjustment needs with a great emphasis on developing ventilation systems.

Objectives of the assessment were as follows:

1. Determine if the existing ventilation system creates adequate air flow in the health facilities with co-located TB service points to avoid nosocomial spread of TB infection;
2. Assess infrastructure adjustment needs (including the need of installing ventilation system) that emerge as a direct result of relocation of TB services into general health facilities;
3. Develop specific recommendations for each service site on physical infrastructure development needs to bring it up to the acceptable level for TB service provision. The recommendations should include specific requirements for ventilation equipment and clear indication of locations at which the ventilation should be installed.

The engineer visited 36 facilities. Detailed projects with related drawings and costing were developed for 26 facilities. The remaining 10 facilities were found inappropriate for installing additional ventilation equipment. The engineer provided various infrastructure adjustment options for those facilities. These options consider allocation of additional space for TB teams because hospital infrastructure does not allow for any adjustment to ensure isolation of TB patients or adequate air flow. The TPP team will discuss specific need in those 10 facilities with the hospital managers and MoLHSA representative to find a suitable solution.

As defined by the initial environmental examination of the USAID TPP, a negative determination with conditions pursuant to 22 CFR 216.3 9a) (2)(iii) is recommended for small scale rehabilitation (including painting, tiling, and plastering, installing new flooring, and repairing, as needed, electrical and heating systems) of TB clinics. In order to comply with above mentioned requirements, URC hired qualified environmental specialist. The environmental expert conducted site visits to 36 health facilities across Georgia to determine whether the planned activities aimed at installing ventilation systems in selected medical wards encompass the potential for environmental pollution or concern and, if so, to determine the scope and extent of additional environmental evaluation, mitigation, and monitoring necessary to fulfill federal U.S. environmental requirements. The environmental review checklist will be submitted to the USAID mission early October 2012. The TPP will start works related to installing ventilation systems as recommended with USAID approval.

IV. Best Practices/Success Stories

The TPP has established effective working relationship with national stakeholders which led to active involvement of MoLHSA, NCDCPH, NTP and private provider representatives in project's activities on a daily basis. The TPP team planned and implemented all project activities through transparent and participatory process:

- TPP Year-1 work plan was developed in close consultations with all relevant stakeholders and agreed upon at the consultative meeting in November 2012.
- Joint assessment of TB care network was conducted by the TPP and MoLHSA staff which helped to draw a comprehensive picture on a level of integration of TB services into general health facilities



- TPP enjoyed a great political support from the CCM leadership and MoLHSA in advocating for smooth integration of TB teams into the broader organizational structure of general hospitals
- TPP facilitated establishment of good working relationship between TB specialists and family medicine professionals. The training course for family physicians and nurses was planned and delivered jointly by FM and TB experts. The cooperation holds good promise in terms of strengthening professional linkages in the future and improving referral and count referral practices.
- The TPP introduced innovative approaches aimed at improving quality of TB services. Besides traditional training, TPP team developed and disseminated job aids for PCP providers on TB diagnosis and referral, established the agenda for quarterly “journal club” meetings for TB professionals, in collaboration with the Georgian Family Medicine Association set up an e-platform for sharing evidence-based materials and clinical case studies.
- The TPP team initiated and, in close coordination with the NCTBLD, took primary responsibility for facilitating the process to ensure that the guideline is developed according to the international methodology (evidence-based guideline development recommended by NICE and adopted by the MoLHSA of Georgia) and meets quality standards. The presented draft guideline was well accepted by the audience. The consultation process will continue till October 20th 2012.
- The TPP brought together multidisciplinary teams from private health care networks including managers, TB teams, family physicians and general practice nurses. The teams agreed to set up quality improvement collaboratives within their network and work together for achieving quality objectives concerning TB care.
- TPP initiated the small grants program for local NGOs and identified three successful candidates to implement projects aimed at improving quality of TB care by nurses, increasing awareness of local community about TB and exploring opportunities for functional integration of TB services into private health care system.

V. Challenges

The main challenge of the inception phase was mobilization of key personnel. Due to their current contractual obligations, immediate full time engagement with the TBPP was not possible for a majority of technical staff including COP. The URC team from HQ provided intensive support to the local office in meeting the phase 1 millstones including office set up and year 1 work plan development. The involvement of a core staff in the project implementation gradually increased to a full time employment in mid-December 2011.

Certain political, technical and administrative factors prevented TPP from implemented the planned activities described below:

- Changes at NTP management created some difficulties in maintaining anticipated timelines for implementation of some activities. In January 2012 the executive director of the National TB Program and National Center of TB and Lung Disease resigned and selection of a new one took several months. The absence of appropriate leadership hampered activities of the NTP itself, for instance the national TB program 2012 was not approved until April 1, 2012 and thus decision-making process needed for USAID TPP in



order to provide support to NTP was postponed. Changing the NCDCPH leadership also caused the delay in planning and initiating capacity building activities for epidemiologists and lab personnel.

- Due to the delay in launching of TPP website the planned web-based learning and professional development activities were postponed. The TPP team suggested and reached agreement with GFMA to use the latter's website to post training materials and case studies for family physicians and general practice nurses, and also host clinical forum for case discussion.
- Recent regulatory amendment in the list of medical specialty which envisaged merging two disciplines "TB specialists" and "Pulmonologist" in one "TB specialist-Pulmonology" was announced in September 2012. Therefore, TPP did not initiate any activity related to revising professional competencies and curricula offerings for health professionals involved in TB care.
- TPP planned to use cell phone, text-messaging system for sending out TB related information to health care workers and general public and reminders to TB patients about referrals. After exploring opportunities for implementing this intervention, the TPP team found this to be associated with substantial costs making its sustainability highly questionable. Moreover, current TB HMIS is not designed in a way that would allow for generating individualized reminder messages to TB patients. A proposal was made to make a reminder message generation a function for the new TB HMIS software that will be developed in close collaboration with the USAID HSS project.

VI. Monitoring and Progress against Indicators

Project monitoring was provided to track performance against key input, output and outcome indicators as defined by the Project Monitoring Plan. The TB project team conducted ongoing monitoring and assessments of all activities implemented by the project staff or subcontractor organizations to: (1) identify project activities that are progressing as planned and should be continued; (2) introduce corrections to activities that are not progressing as planned; and (3) detect interventions that needed modification to produce desired impact.

The TB project team produced monthly, quarterly, and annual reports highlighting achievements on various indicators. These reports/vignettes are stored in the PMIS database to allow rapid retrieval for reports and presentations.



Table 1: Illustrative Performance Monitoring Plan

Objective 1. Improve early detection of suspected TB cases (early diagnostics) in general health facilities				
Output Indicator				
Indicator	Data Source	Frequency	Year 1 Target	Year 1 Actual
1.1. Train primary health care doctors, nurses and other general health staff to recognize symptoms and test suspected cases (training and support of PCPs)				
# of management improvement collaborative meetings	Project Report	Quarterly	3	3
# of service delivery improvement collaboratives formed at regional levels	Project Report	Quarterly	6	4
# of regional service delivery improvement collaborative meetings	Project Report	Quarterly	72	4
# of service delivery improvement teams formed at facility levels	Project Report	Semi-Annual	TBD	65
# of TB training modules (to Identify TB suspects in the early stage of disease) for family physicians developed/revised	Project Report	Annually	1	1
# of TB training modules (to Identify TB suspects in the early stage of disease) for general practice nurses developed/revised	Project Report	Annually	1	1
# of Family doctors trained in identification of TB suspects in the early stage of disease	Project Report	Quarterly	200	208
# of General nurses trained in identification of TB suspects in the early stage of disease	Project Report	Quarterly	200	216
# performance appraisal visits conducted to family physicians and general practice nurses	Project Report	Annually	100	5
1.2. Ensure use of a standard TB case detection module in all pre- and in-service training curricula for general practitioners				
# of consultative meetings held with MoE, Tbilisi State Medical University, professional associations and other key stakeholders to review/update TB case detection module in pre-and in-service training curricula for general practitioners	Project Report	Quarterly	TBD	2
# of teachers retrained on new topics/methods of the TB case detection module in pre-and in-service training curricula for general practitioners (stratified by pre-and in-service trainings)	Project Report	Quarterly	50	22
# of Distance-learning courses and innovative approaches to improve attendance to TB training modules and rotations are developed	Project Report	Annually	2	0



1.3. Assist in the creation of a national strategy that encourages general practitioners to identify and diagnose suspected TB cases in general health facilities for further referral to the NTP				
# of well-performed PHC teams (family doctors and nurses) participated in workshops and capacity building activities at Regional TB Training Center in Georgia	Project Report	Annually	10	0
# of CDs with new literature, web-based and case-based modules for PCPs (to support them to refer TB suspect cases to TB specialists) are developed and distributed to health care facilities	Project Report	Annually	250	0
# of Paper bulletins, massaged pens, mugs, calendars and etc for PCPs (to support them to refer TB suspect cases to TB specialists) developed and distributed to health care facilities	Project Report	Annually	250	400
# of meetings conducted with key stakeholders (MoLHSA, HSSP, Private Insurance Companies, Georgian Insurance Association, Service Providers and etc) to integrating TB case detection and referral services by PCPs into the standard benefit packages of private health insurance schemes	Project Report	Quarterly	4	0
Technical report with recommendations and practical tools to integrating TB case detection and referral services by PCPs into the standard benefit packages of private health insurance schemes is developed and disseminated	Project Report	Annually		0
1.4. Develop information materials (brochures and posters) and public service announcements (PSA) to educate the public on the importance of detecting early signs of TB				
KAP survey conducted	Survey report	Annually	Yes	Yes
# of TV, radio and web-based campaigns and club discussions conducted to inform the general public about the early signs of TB and available resources	Project Report	Quarterly	4	2
# of Printed materials distributed to the general public in common areas such as banks, grocery stores, bars and restaurants	Project Report	Quarterly	TBD	500
1.5. Reduce the stigma of TB through PSAs and informational materials				
# of current and former TB patients trained to deliver positive messages to the public about TB diagnosis and treatment.	Project Report	Annually	100	0
# of local leaders, cured TB patients delivering TB stigma reduction massages	Project Report		TBD	0
# of PSA and community events held to deliver stigma-reduction and awareness building communication messages	Project Report	Annually	4	1
# of brochures, posters, "I am The Best" T-shirts, mobile massages, TV, radio and web-based information distributed to deliver stigma-reduction and awareness building communication massages	Project Report	Annually	5000	50 T-shirts, 13 posters, 1 banner, 30 mugs



Outcome/Impact Indicator				
# of patients with suspected TB referred from primary care providers for TB diagnosis (stratified by length of TB suspected symptoms, by regions/districts)	Multiple Sources	Annually	TBD after baseline assessment	Average: Imereti region - 6 per month Kakheti region - 18 per month
% of TB+ cases in total number of suspected TB patients referred from primary care providers	Multiple Sources	Annually	TBD after baseline assessment	Imereti region - 25% Kakheti region - 55%
Case notification rate in new sputum smear positive pulmonary TB cases per 100,000 population nationally	TB surveillance database (2010 baseline 48.6)	Annually	52.9	48
#/% of PHC teams which refer patients with suspected TB symptoms to TB services within two weeks of onset of symptoms	Multiple Sources	Annually	TBD after baseline assessment	Imereti and Kakheti regions 13

Objective 2: Strengthen the quality of full implementation of DOTS and DOTS plus nationwide

Output Indicator				
Indicator	Data Source	Frequency	Year 1 Target	Year 1 Actual
2.1. Expand geographically to cover nationwide quality DOTS and DOTS plus services through technical assistance and training of medical personnel and supportive supervision				
# of outpatient TB service providers evaluated through supportive supervision visits	Project Report	Annually	75	63
Performance appraisal report available	Technical Report	Annually		TB Network assessment report
# of diagnostic facility staff trained in QA issues	Project Report	Quarterly	25	0
# of DQA visits to facilities to assess the quality of data by indicators and validate reported information across different levels of the health system	Project Report	Annually	TBD	140
# of TB patients enrolled in text messaging service for receiving adherence reminders	Project Report	Annually	TBD	0
# of TB patients counseled after they leave penitentiary system	Project Report	Annually	TBD	0
2.2. Provide technical support to NTP in training, management, infection control, monitoring and evaluation, policy and strategy formulation, development of the TB strategic plan (2013 – 2015), and operations research				
# of national and international workshops conducted by the NTP trainers with support of the project	Project Report	Annually	1	0
# of existing IC policies and guidelines adapted	Technical Report	Annually	TBD	1



2.3. Ensure an appropriate national TB policy and program response in the evolving Georgian health system reform				
# of consultative meetings on legal and policy issues organized by the project that will be attended by the CCM members are other stakeholders	Project Report	Annually	2	0
Technical assistance provided to ensure that regulatory tools are put in place to support national decision makers in health to ensure future availability of case detection and DOT services in private health care settings	Project Report	Annually	TBD	1
2.4. Support to local NGOs with known success in assisting patients to adhere and complete MDR/XDR treatment				
# of NGO representatives trained on TB related policy, proposal writing, financial management, strategic and operational planning.	Project Report	Annually	TBD	14
# of small grants programs implemented by NGOs	Project Report	Annually	TBD	3
# of village nurses trained providing DOT and counseling services	Project Report	Annually	50	0
# of social workers conducted field experience in NTP and local NGOs delivering community support services for HIV positive and TB patients	Project Report	Annually	5	0
2.5 Assist the professional association of TB specialists				
# of grant writing workshops conducted for members of TB professional associations	Project Report	Annually	4	0
Annual award ceremony: the "Best TB specialist" and the "Best PHC Site" conducted	Project Report	Annually	1	0
# of "journal club" meetings for members of the National Association of TB Specialists	Project Report	Quarterly	1	2
# of association members attending regional conferences	Project Report	Annually	4	0
# of small grants programs implemented by various professional associations in carrying out TB education programs for its members	Project Report	Annually	TBD	1
Outcome/Impact Indicator				
Treatment success rate for new smear positive TB cases: number and percentage of new smear-positive TB cases successfully treated (cured + treatment completed) to the total number of new smear-positive TB cases treated in a given year, in %	TB surveillance database (2009 baseline 75%)	Annually	77%	76%
Treatment success rate of MDR-TB patients: number of patients who were cured or completed Category IV treatment (% of the total number of patients in the same registration cohort)	TB surveillance database (2008 baseline 54.5%)	Annually	50%	55%
Interim treatment success rate of MDR-TB patients: number of patients who are smear and culture negative at 6 months after start of treatment (% of the total number of patients in the same registration cohort)	TB surveillance database (2008 baseline 55%)	Annually	60%	



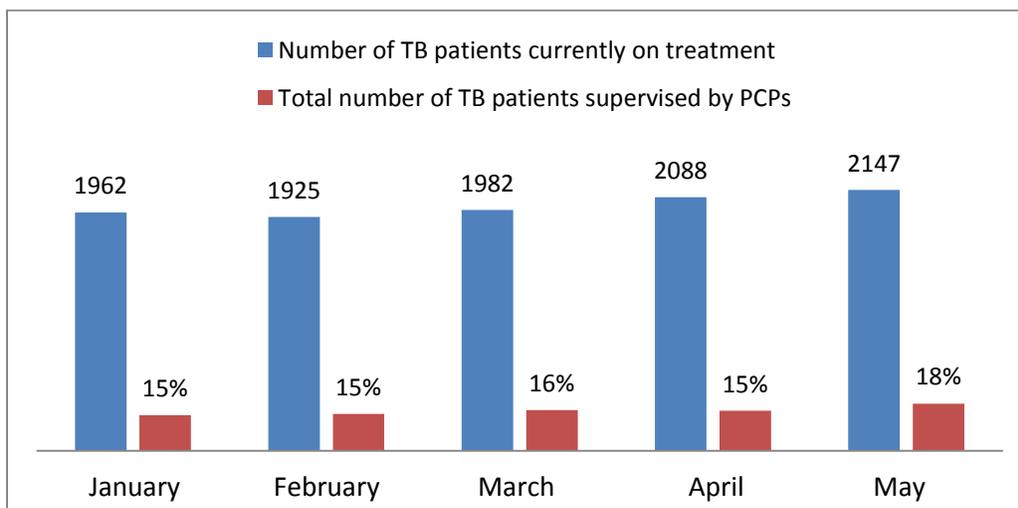
Objective 3: Assistance to recently established private treatment sites nationwide in updating physical infrastructure to meet TB best practice standards, and to improve infection control

Output Indicator				
Recommendations elaborated for adjusting physical infrastructure of health facilities	Facility assessment report	Annually	Yes	Yes
Infectious control standards for different types of facilities elaborated	Project reports	Annually	Yes	Partially
# of health facilities updated and equipped	Project reports	Annually		
# of staff trained on effective IC measures	Project reports	Annually		
Impact Indicator				
# and % of TB patients accessing key services in each clinic- screening, diagnosis, treatment	Project reports	Annually	TBD	

A. Baseline Assessment

January – May 2012 data were collected at all 70 TB sites as baseline information to guide M&E of planned activities. Five months data analysis revealed slight increase in a number of TB patients currently on treatment in Georgia (excluding NCTBLD) – from 1962 to 2147. However without data of NCTBLD – the largest provider of TB services it is hard to present the countywide trend. Number and share of TB patients (including MDR and XDR cases) supervised by primary care providers increased in parallel: from approximately 15% to 18% indicating at the growing role of primary health care system in TB management (see Figure 1).

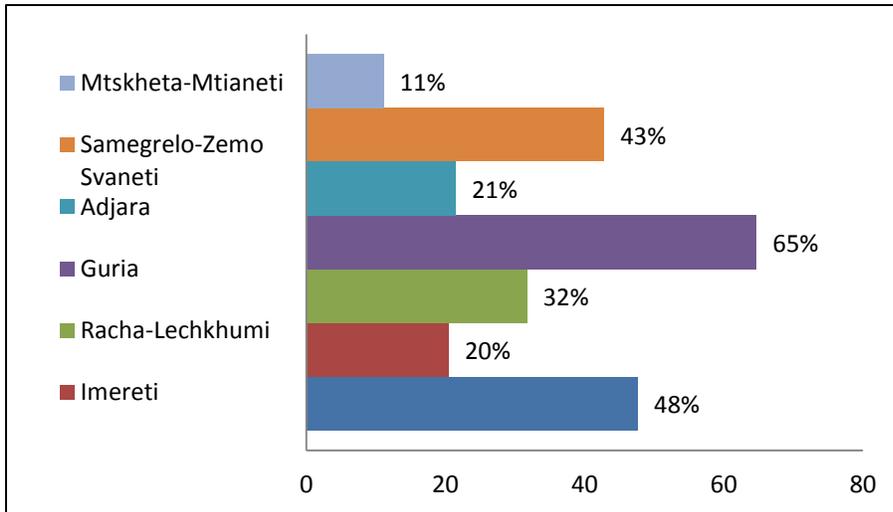
Figure 1. Share of Patients Supervised by PHC Provider





There is significant regional variation in the proportion of patients supervised by the PHC provider - from 0 in Tbilisi to as much as 65% in Guria (see Figure 2).

Figure 2. Share of Patients (%) Supervised by PHC Provider by Regions (Jan-Mar 2012)



Total number of suspects in a given month increased from 1125 in January to 1449 in May. This is mainly because of new cases in Adjara region (where number of suspects increased from 148 to 304). Likewise, the number of suspects among retreatment cases remained stable. At the same time number of confirmed cases practically did not change. Therefore, the percent of confirmed cases decreased from approximately 26% to 20%. This could in part be explained by change in suspect investigation financing scheme. However, it should be mentioned that in some cases confirmation might take longer time, so the final data might be insignificantly changed.



Figure 3. Total Number of TB Suspects and Confirmed Cases in Georgia

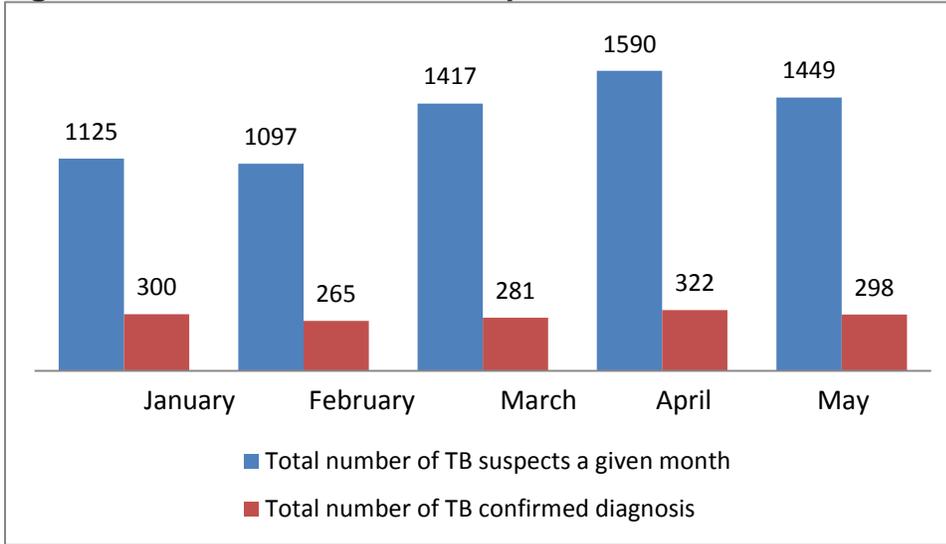


Figure 4. Total Number of TB Suspects and Confirmed Cases in Adjara region

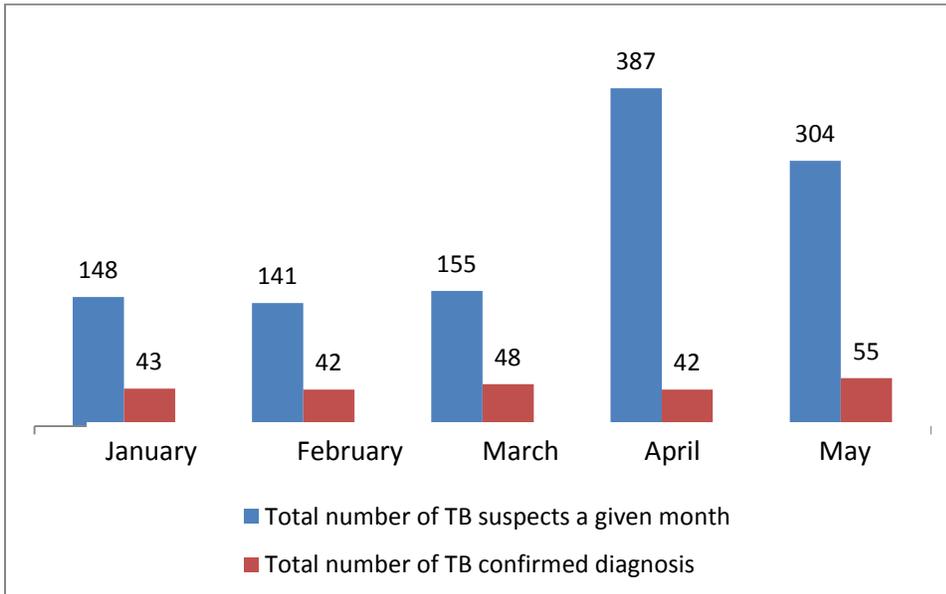
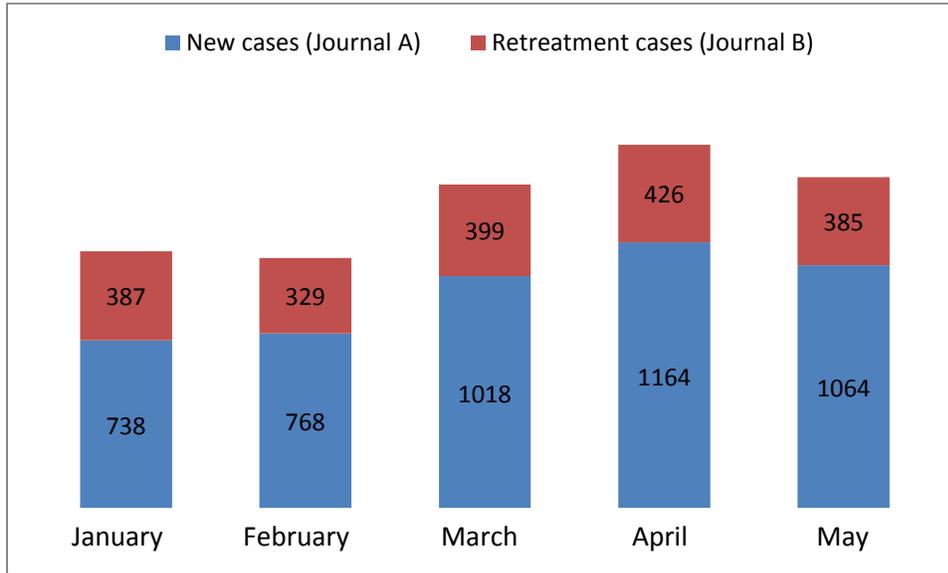


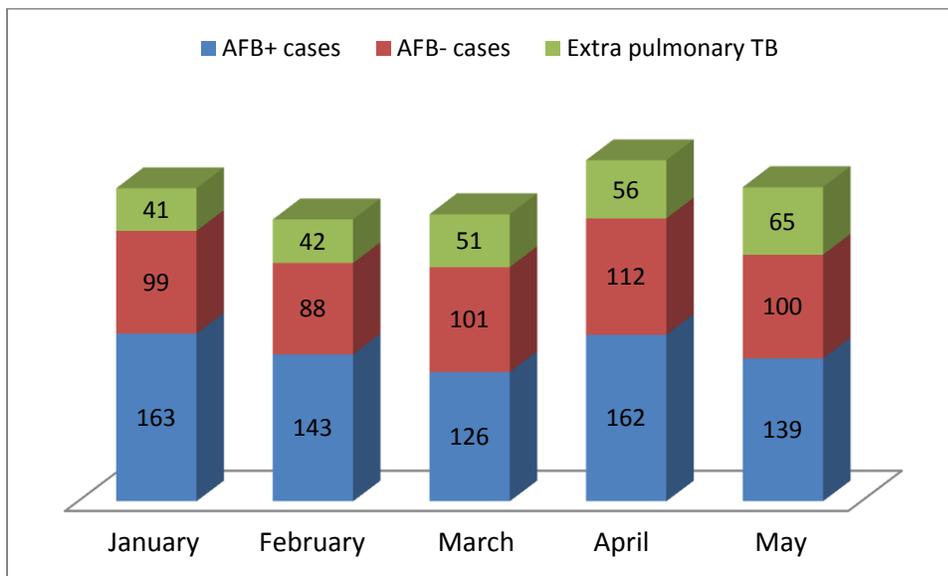


Figure 5. Total Number of TB Suspects as New and Retreatment Cases



Proportion of pulmonary TB (AFB+ and AFB- cases) and extrapulmonary TB patients remained the same, with the majority represented by pulmonary TB AFB+ cases.

Figure 6. Structure of Confirmed TB Cases

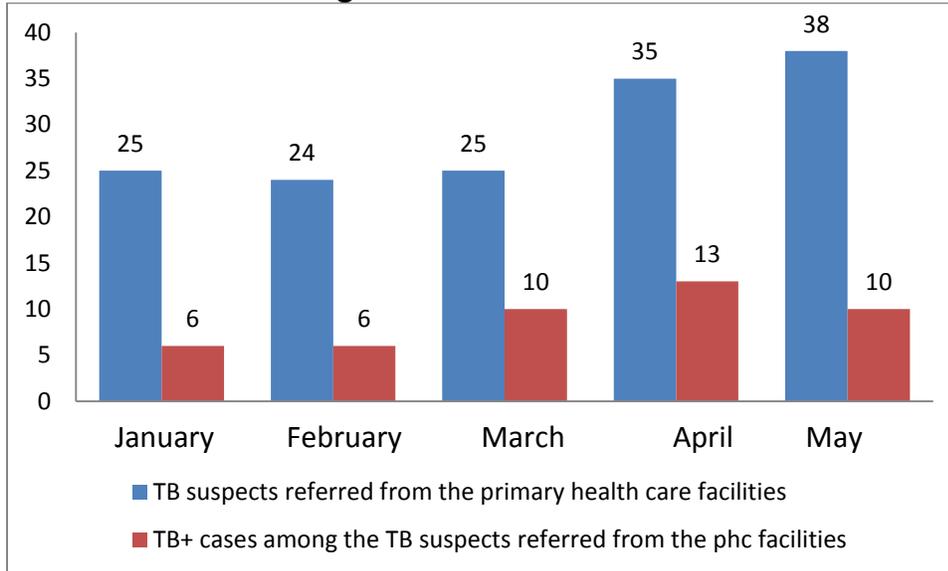


Referral of patients from the primary care facilities to TB specialists represents the most challenging area of data collection. Because as the patients often receive informal instruction to visit TB specialist. Data were collected in two regions only – Kakheti and Imereti and even these



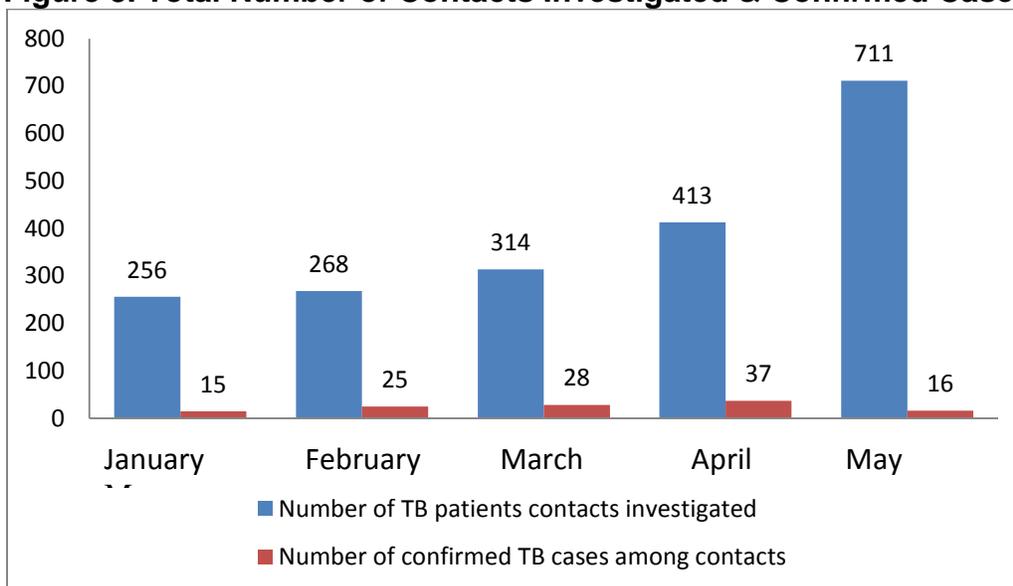
might be underestimation of the actual number. However, the proportion of confirmed cases among the suspects referred from primary health care facilities as compared to all suspects was notably high and varied from 24% to 40% in above mentioned regions.

Figure 7. TB Suspects Referred from PHC and confirmed cases among them in Kakheti and Imereti regions



During the survey period the number of investigated contacts increased almost three times from 256 to 711. This can be explained by increased involvement of NCD/CPH epidemiologists in contact tracing. The number of confirmed cases among them also increased but not so sharply, therefore the proportion fluctuated from 2.2% to 9%. Such high rate of active TB among contacts of TB patients points at the need of patient education and improved infection control.

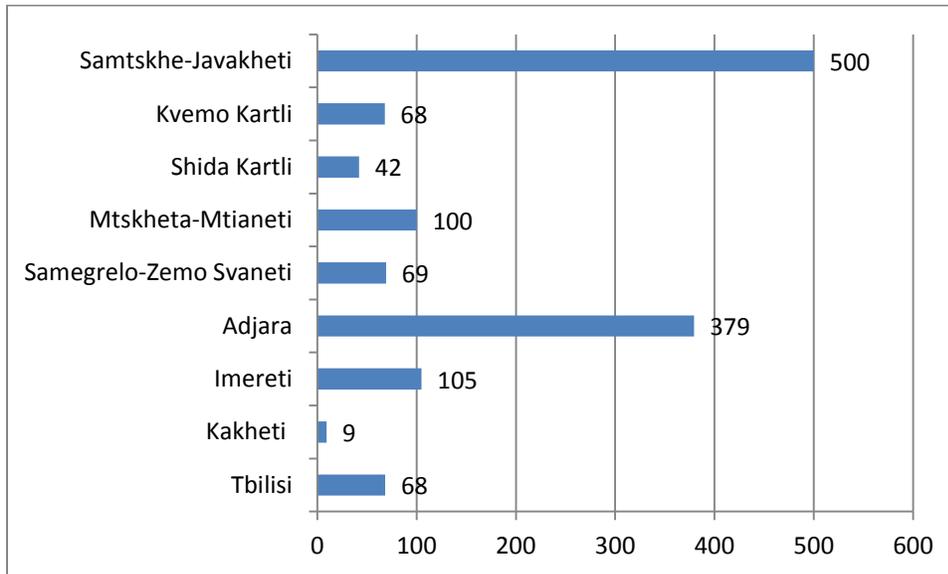
Figure 8. Total Number of Contacts Investigated & Confirmed Cases among them





Contact tracing was also marked with significant regional variation with slight decrease in Guria region and more than 400% increase in Adjara and Samtskhe-Javakheti.

Figure 9. Increase in contact investigation in different regions (%)



VII. Project Administration

Immediately after the award of the project agreement, the URC branch completed registration in Georgia. Georgia- URC standard operational procedures and an operational manual were developed in consultation with URC-HQ office in Bethesda. Likewise, administrative and financial management systems and processes were established in accordance. Hiring of core technical and administrative personnel was completed by the end of December 2011. Regional coordinators which will support the project implementation in various regions of Georgia were hired April 2012.

During Year 1, the project team in Georgia maintained regular communication with the administrative team within URC headquarters in Bethesda, Maryland to address ongoing activities. Dr. Neeraj Kak, URC Vice-President and Manith Hang, Project Coordinator visited the Georgia office in May 2012. Dr. Kak made site visits and met the leaders of the National TB Program to get better understanding of key issues and challenges, reviewed project strategies and conducted a workshop for the project staff on URC’s strategic approach to improving/strengthening TB control and prevention programs. Ms. Hang provided monitoring and consultancy on administrative/financial issues. Alisha Smith-Arthur, Associate Director, and Program Support Team visited Georgia office in August 2012.

The project team in Georgia continued regular communication with the administrative team within URC headquarters in Bethesda, Maryland to address ongoing activities.



VIII. Budget and Expenditures

Below is the summary of FY 12 budget and expenditures. The cost-share in FY2012 budget did not exceed 0.1%. The TPP will employ better strategies in FY 2013 to encourage the cost contribution from partners and potential sub-grantees.

LINE ITEM	Approved Budget	Total Spent to date	Balance	FY12
Salaries and Wages	\$ 1,338,547	\$ 158,884.15	\$1,179,663.33	\$158,884.15
Consultants	43,101	\$ 18,095.81	\$ 25,005.19	\$ 18,095.81
Fringe Benefits	67,965	\$ 6,028.46	\$ 61,936.54	\$ 6,028.46
Travel and Per Diem	91,696	\$ 40,195.53	\$ 51,500.47	\$ 40,195.53
Equipment	124,583	\$ 49,890.94	\$ 74,692.06	\$ 49,890.94
Training	701,595	\$ 25,098.58	\$ 676,496.42	\$ 25,098.58
Other Direct Costs	394,147	\$ 60,787.62	\$ 333,359.38	\$ 60,787.62
Subcontracts/Subagreements	900,000	\$ 72,895.13	\$ 827,104.87	\$ 72,895.13
Sub-total	\$ 3,661,634.48	\$ 431,876.22	\$3,229,758.26	\$431,876.22
Indirect Costs	\$ 784,929.00	\$ 94,842.00	\$ 690,087.00	\$ 94,842.00
Total Estimated Cost	\$ 4,446,563.48	\$ 526,718.22	\$3,919,845.26	\$526,718.22
Cost Share @ 5%	\$ 222,328.17	\$ 605.00	\$ 221,723.17	\$ 605.00
Total Est'd Cost + Cost Share	\$ 4,668,891.65	\$ 527,323.22	\$3,919,845.26	\$527,323.22

Budget Overview	
Total Approved Budget	\$4,401,225.00
Total Spent to date	\$526,718.22
Balance	\$3,874,506.78
Current Obligation	\$3,330,000.00
Total Spent to date	\$526,718.22
Balance	\$2,803,281.78
Current Burn Rate	\$43,893.18

IX. Key Activities for Next FY 2013

In Quarter 1 of FY2013 the TPP team will continue the following activities started in Year-1:

- Training an additional 300 FPs and 300 Nurses in Adjara, Samegrelo, Mtskheta-Mtianeti and Imereti regions
- Organizing quality improvement collaborative meetings
- Elaborating the National TB Strategy and Action Plan for 2013-2015
- Launching TB management guideline and protocols
- Starting the implementation of three small grant programs and identify new sub-grantees for other initiatives



- Supporting installation of ventilation systems in selected TB service points upon USAID approval

Other activities included in the Year-2 work plan will be initiated upon USAID approval.



X. Appendices

X.I. List of deliverables produced in Year-1

1. List of survey and assessment reports produced

- Jenifer Furin and the URC local team, TB integration into general health facilities in Georgia: situation analysis, May 2012
- Training needs assessment of primary care providers in TB early detection and management, April 2012
- Assessment of TB care services, June 2012
- Knowledge, Attitude and Practice survey, Georgia Maternal and Child Care Union, September 2012
- Engineering assessment of TB care services (By George Stephnadze and the TPP team), September 2012

2. List of ACSM materials produced

- 70 T-shirts for WTBD
- 10 posters for WTBD
- 50 flying candles for WTBD
- 500 flyers for general population
- 1 banner for WTBD
- 3 banners with logos of USAID and TPP project
- 30 cups with message “Stop TB” and logos of USAID and TPP project for health care workers

3. List of training courses conducted and materials produced

- Training course “early detection and management of TB in general practice for family physicians
- Training course “early detection and management of TB in general practice for nurses”
- Revised training modules in early detection and management of TB in general practice for family physicians and nurses
- PowerPoint presentations of early detection and management of TB in general practice for family physicians and nurses
- Multiple Choice questions for physicians and nurses
- 1000 Job aids for timely identification and management of TB at primary health care level
- 8 Clinical case studies(available at www.gfma.ge)



X.II Pictures of Events