



USAID
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**Summary Report
Tuberculosis Indefinite Quantity
Contract, Task Order 1
GHN-I-00-09-00006**

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Submitted to:

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Acronyms

ACSM	advocacy, communication, and social mobilization
ACT!	Africa Coalition on Tuberculosis
AFB	acid-fast bacilli
ART	antiretroviral therapy
CAD	Club des Amis Damien
CDC	US Centers for Disease Control and Prevention
CPLT	Coordination Provinciale de Lutte contre la Lèpre et la Tuberculose
CSDT	Centre de Santé de Dépistage et Traitement
CSO	civil society organization
DRC	Democratic Republic of Congo
HIV	human immunodeficiency virus
HTC	HIV testing and counseling
IQC	Indefinite Quantity Contract
KP	key population
LNAC	Ligue Nationale Antituberculeuse et Antilépreuse du Congo
M&E	monitoring and evaluation
MDR-TB	multidrug-resistant tuberculosis
MTB	<i>Mycobacterium tuberculosis</i>
NRL	National Reference Laboratory
NTBLCP	National TB and Leprosy Control Program
NTP	national tuberculosis program
PATH	Program for Appropriate Technology in Health
PHD	Provincial Health Department
PPM	public-private mix
TB	tuberculosis
TB/HIV	tuberculosis and HIV co-infection
Union	International Union Against Tuberculosis and Lung Disease
USAID	US Agency for International Development
WHO	World Health Organization

Introduction

Tuberculosis (TB) Indefinite Quantity Contract (IQC) Task Order 1 was awarded to PATH on September 29, 2009, with a scheduled end date of September 28, 2014. PATH is implementing activities requested by the US Agency for International Development's (USAID) Bureau for Global Health, Office of Health, Infectious Diseases and Nutrition, Infectious Diseases Division, and USAID missions in Bangladesh, the Democratic Republic of Congo (DRC), India, Tanzania, and Vietnam.

PATH has continued to work closely with USAID headquarters and missions, national TB programs (NTPs), and international and in-country partners and collaborators to ensure that progress continues on work plans. This work would not be possible without the valuable contributions of our international partners on the task order, including the American Society for Microbiology, Dartmouth Medical School, the Foundation for Innovative New Diagnostics, Initiatives Inc., Management Sciences for Health, Partners in Health, and the University of California, San Francisco.

Per USAID's recommendation, this summary report contains key achievements across the TB IQC Task Order 1 PATH-supported portfolio. A detailed update for each project, including results, activity monitoring, and success stories, can be found in the Microsoft Excel reports attached.

Summary of achievements

Global support

Through Core-funded activities, PATH and our partners provide global technical assistance in support of advocacy, communication, and social mobilization (ACSM) and the introduction of new tools.

Sustainable civil society leadership in Africa

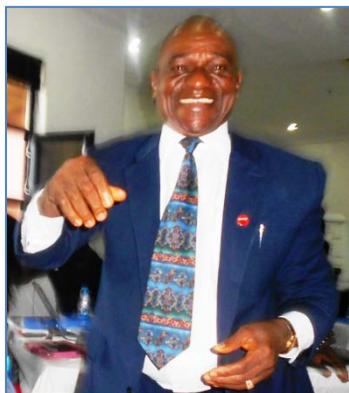
Civil society plays a critical but frequently less visible role in supporting TB control efforts. Since the Africa Coalition on Tuberculosis (ACT!) was launched with project support on World TB Day 2012, the coalition has aggressively worked to bring together dynamic leaders from across Africa. As a member described it, "This advocacy should be shared more widely, especially with grassroots that really work on advocacy issues in their countries."



This reporting period, the supportive and enthusiastic National TB and Leprosy Control Program (NTBLCP) of Nigeria requested that PATH conduct an ACSM workshop in Nigeria to build the capacity of civil society organizations (CSOs) to implement effective ACSM interventions and assist in strengthening collaboration among CSOs and with the NTBLCP. Ms. Carol Nawina Nyirenda, ACT!'s president, was invited to introduce ACT! and share its regional vision with participants. Following an active discussion led by Mr. Chibuike Amaechi, ACT!'s vice president and a civil society leader in Nigeria, participants from diverse CSOs from across the country enthusiastically agreed to launch ACT!'s Nigeria chapter.

To sustain momentum, the group elected an interim steering committee and identified concrete next steps to be undertaken. One participant described the atmosphere by stating, "This has been the most

enlightening workshop I've ever attended and which made a lot of sense in terms of the training curriculum, time spent, and efforts of the facilitators in seeing we all grasped the concepts. We need to back up talk with action now."



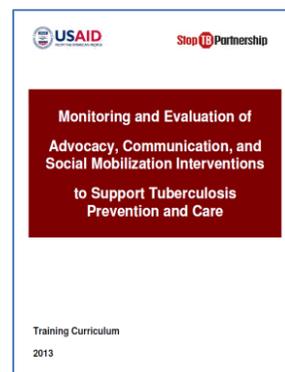
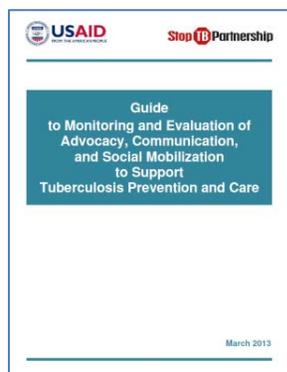
ACT! members also chaired panel discussions to advocate for civil society efforts and initiated a civil society march event during the 2012 Union World Conference on Lung Health in Malaysia—a first for the conference. Following the conference, Ms. Nyirenda presented at the Union board retreat to ensure that community activists are represented at Union regional governing bodies. The board agreed to form a civil society commission to look into creating a civil society working group and allocated 100 free conference registrations for affected communities to attend the 2013 Union conference in Paris. Ms. Thokozile Beatrex Nkhoma, ACT! member from Malawi, was selected as a community representative on the World Health Organization (WHO) Stop TB Partnership Coordinating Board. ACT! and the Stop TB Partnership

Secretariat agreed to collaborate further to host the larger regional meeting of TB activists identified through this exercise. ACT! continues to rapidly gain ground and has positioned itself not only to mobilize communities for a TB-free Africa, but also to serve as a model for other regions of the world.

Building capacity for rigorous monitoring and evaluation of ACSM interventions

Rigorous monitoring and evaluation (M&E) of ACSM is critical to ensuring that ACSM interventions support NTP objectives and that ACSM-related contributions to improved case detection and treatment outcomes can be captured, and conducting better M&E of ACSM interventions has been identified as a key need of the global TB community.

This reporting period, the *Guide to Monitoring and Evaluation of Advocacy, Communication, and Social Mobilization to Support Tuberculosis Prevention and Care* and accompanying training curriculum, *Monitoring and Evaluation of Advocacy, Communication, and Social Mobilization Interventions to Support Tuberculosis Prevention and Care*, designed to help NTP managers and civil society ACSM implementers alike conduct practical and rigorous M&E of their work, were finalized and endorsed by the Stop TB Partnership for global use.



The guide was chosen by the US Centers for Disease Control and Prevention (CDC) TB resources team to be the TB Highlight of the Month for the May 2013 issue of Find TB Resources. The curriculum and guide were widely disseminated among various partners, including the Stop TB Partnership, USAID, CDC TB resources, the PATH website, and the Stop TB Partnership ACSM Subgroup. An ACSM M&E symposium will be conducted by PATH on November 2 at the 2013 Union conference to further share the tools and train diverse global stakeholders on their use.

Technological innovation to address TB and diabetes

Diabetes and TB are not only common among the same populations, the two diseases amplify each other. To combat this growing dual epidemic, noninvasive, high-performing screening tools and procedures are urgently needed. After the formation of the research team, and concept development and extensive consultation with the Mexican Ministry of Health, the research protocol for a bidirectional screening

study utilizing novel, noninvasive technologies was finalized and submitted for ethical clearance to PATH's Research Ethics Committee and Mexico's Institutional Review Board. Provisional approval was received from both entities, and study preparations have commenced. Data collection is expected to begin in mid/late 2013.

In-country support

PATH, in collaboration with our partners, is implementing activities requested by USAID missions in Bangladesh, DRC, India, Tanzania, and Vietnam.

Supporting Stop TB Strategy implementation in Tanzania

PATH is supporting 1,125 health facilities in Tanzania as of September 2013; 78 facilities were added in this reporting period. From October 1, 2012 to September 30, 2013, 24,678 TB cases were notified in these facilities. Of these, 20,113 (82%) had unknown HIV status. A total of 19,079 people (95% of those with unknown status) were tested for HIV, and 4,232 people (22%) were found to be HIV positive. Of these, 4,158 people (86%) were registered for HIV care and 2,832 people (67%) were started on antiretroviral therapy (ART). In addition, 4,016 people (95%) were started on cotrimoxazole preventive therapy.



Photo credit: PATH

Finding more children with TB

Globally, pediatric TB is under-diagnosed, leading to unnecessary childhood deaths. In 2011 in Tanzania, only 8.4% of the total new case notifications were among children younger than 15 years. This year, PATH continued to make strides in improving the detection and management of pediatric TB

across Tanzania. During Year 4, PATH conducted pediatric TB orientation for 332 health care workers in six regions. Pediatric TB supervision and mentorship was also conducted for health facilities trained on pediatric TB management. For the past two years, pediatric TB cases have accounted for 6.7% to 8% of all TB notifications in Tanzania. Since the initiation of the pediatric TB trainings in June 2012, this percentage has increased steadily. By April 2013 in PATH-supported regions, pediatric TB case notification had increased to 11% of total case notification—a notable increase from April 2012 (7.5%). Between October 1, 2012 and September 30, 2013, 2,662 children were notified, accounting for 11% of total notification. Among these children, 2,176 (82%) had unknown HIV status. A total of 2,042 (94%) were tested for HIV, and 13% were HIV positive. ART uptake is 65% among children.

Infrastructure and coordination for TB diagnosis improved

PATH has provided ongoing support to the Central Tuberculosis Reference Laboratory, diagnostic centers in PATH-supported regions, and the transport system for sputum specimens throughout the country. In September 2012, PATH introduced two GeneXpert® MTB/RIF machines, one in the Amana hospital (Dar es Salaam) and one in the Sekou Toure hospital (Mwanza). Reagents and supplies for these machines were also provided. A total of 4,028 specimens were processed by GeneXpert® MTB/RIF from September 2012 through September 2013. A total of 23 MTB/RIF-resistant cases were detected at the Amana laboratory, and 17 MTB/RIF-resistant cases were detected at the Sekou Toure laboratory.

Stop TB Strategy implementation in the Democratic Republic of Congo

Improved management of MDR-TB

PATH continued to support capacity-building in programmatic management of drug-resistant tuberculosis, including intensified screening for multidrug-resistant tuberculosis (MDR-TB) among the target groups, training of health providers, and increased staff engagement in collecting and transmitting specimens to the National Reference Laboratory (NRL). In addition, PATH intensified supportive supervision from the NRL to the Coordination Provinciale de Lutte contre la Lèpre et la Tuberculose (CPLT) level, from the CPLT to the Health Zone level, and from Health Zones to Centre de Santé de Dépistage et Traitement (CSDTs). Implementation of GeneXpert® machines in Kinshasa and Sud Kivu boosted the NRL's MDR-TB diagnostic capacity, reducing delays and loss to follow-up. During this reporting period, a total of 2,705 presumptive MDR-TB specimens were collected and sent to the NRL from Kinshasa alone, while 4,572 specimens were transported from the remaining CSDT to the NRL. Among those, 810 specimens (18%) came from the seven supported CPLTs. A total of 82 new MDR-TB cases were diagnosed, of whom 39 (48%) came from CPLT Kinshasa, 34 (41%) from PATH-supported CPLTs, and 9 (11%) from the remaining 15 CPLTs in the country. Of the 70 patients enrolled for treatment, 34 came from CPLT Kinshasa, 30 from PATH-supported CPLTs, and six from the rest of the country. Currently, there are 12 MDR-TB patients awaiting administrative procedures to start second-line treatment. Distribution of treatment adherence packages has contributed to improved treatment outcomes. Of 125 MDR-TB patients who started treatment in 2011, 105 (84%) completed treatment, an improvement compared to previous cohorts. At the last adherence package distribution, 535 patients were served.



Photo credit: PATH

Integrating TB and HIV services

During this reporting period, TB/HIV integrated activities were scaled from 14 to 70 sites. Scale-up activities included sensitization of providers, training on HIV testing, and ensuring adequate supply of HIV test kits; strengthening functionality of laboratories; and raising waste management awareness. In addition to coordination meetings (one national and 11 provincial), 16 joint TB/HIV supervision missions were sponsored from the national level to the field in the seven coordinations. These two activities significantly strengthened TB/HIV performance, as shown by improvement in the percentage of patients tested for HIV and the number of co-infected patients put on antiretroviral medications in targeted sites and overall in project-supported provincial coordinations. By September 2013, 66 (94%) of the targeted 70 operational CSDTs had integrated TB and HIV activities. As a result, 6,169 (97%) of the 6,278 new TB patients were counseled for HIV testing, of whom 87% (5,345) were tested. A total of 451 of the 605 confirmed HIV-positive cases were placed on cotrimoxazole (75%) and 360 on ART (60%). This represents progress in an area where we are working out collaborations with partners providing treatment.

Expanding community-based interventions

With technical support from PATH and Initiatives Inc., Ligue Nationale Antituberculeuse et Antilépreuse du Congo (LNAC) and Club des Amis Damien (CAD) members referred 3,082 presumptive TB cases for testing this reporting period, among them 1,615 (52%) were confirmed as TB patients. This represents 16% of all TB cases detected in project areas (1,615/10,350). Overall in CSDTs where CAD antennae have been created, the proportion of patients contributed by CAD is as follows: Sud Kivu 49%, Sankuru 30%, Equateur Est 28%, Kasai Orienta Sud 17%, Maniema 12%, Kasai Occidental Est 10%, and Occidental Ouest 6%. LNAC also conducted sensitization of 800 people on TB/HIV and multidrug

resistance; held a TB/HIV and MDR-TB meeting with six community-based organizations; produced a television spot on ACSM; and used television and radio to broadcast 12 messages related to ACSM, TB/HIV, and multidrug resistance.

Scaling up public-private mix to find more cases of TB and HIV in Vietnam



Photo credit: Dao Thi Huan, PATH consultant

The public-private mix (PPM) referral mechanism was expanded from 14 to 21 districts in three provinces of Vietnam Nghe An, Ho Chi Minh City, and Can Tho. In Hai Phong, implementation of the PPM referral model successfully transitioned to the Provincial Health Department (PHD) in March 2012, and the percentage of PPM contribution remains high, at 18.5% in January-June 2013. With the expansion, 368 new private/non-NTP facilities were added to the referral system, bringing the total number of private/non-TB facilities to 1,010 (462 pharmacies, 518 private hospitals and clinics, and 30 non-TB public hospitals). The efforts of these facilities resulted in the screening of 9,345 persons

presumed to have TB, of which 1,138 (12.2%) were confirmed with active TB and 852 (74.9%) of those were confirmed smear positive, from October 2012 to September 2013. Within the same period, 989 (86.9%) TB patients were tested for HIV.

HIV referral system launched to increase HIV case-finding

In Hai Phong, 52 private facilities and one of the biggest TB units in four urban districts participated in the HIV referral system. The project launched in early February 2013, and 39 facilities (73.6%) are already referring key populations (KPs) to HIV testing and counseling (HTC) services through this system. Of the 895 KPs referred to HTC sites, HTCs received and tested 278 people (31.1%) for HIV and ten were diagnosed. The results indicate the new model could increase uptake of HTC services, resulting in early access to HIV services for KPs, including those at risk of TB.

Diagnosis and treatment model implemented in a private facility in Ho Chi Minh City

In collaboration with the NTP and PHDs, PATH conducted an assessment of the feasibility of introducing PPM models beyond referral in ten selected private hospitals/clinics. Based on findings and through discussions with the NTP, Phoi Viet Clinic, a lung clinic in Ho Chi Minh City, was selected to pilot the diagnosis and treatment approach. PATH, in collaboration with the NTP, provided support to implement the diagnosis approach while the NTP continues to support the treatment approach due to the timeline of this project. Under the NTP's supervision, Phoi Viet Clinic can now provide high-quality diagnosis and treatment services that comply with the NTP's requirements/protocols. From April 15 to September 30, 2013, the clinic helped diagnose 109 TB cases; among those, 51 were identified as AFB positive. The Lot Quality Assurance System results showed correct diagnosis for all tested slides. After only three months of implementation and evaluation, Phoi Viet Clinic was certified by the NTP in September, becoming the first private facility to implement the diagnosis and treatment model in Ho Chi Minh City.

Forging ahead to streamline, expand, and scale up public-private mix efforts in Bangladesh

The majority of health care is provided by the private sector in Bangladesh, yet private providers are not required to record and report TB diagnoses, and treatment practices are not easily monitored. As a result, unsupervised and unstandardized treatment of TB has contributed to drug resistance.

Currently, many PPM models and efforts are being employed in Bangladesh. Working closely with local stakeholders, PATH helped facilitate the creation of new TB PPM committees at the national, divisional, and district levels. This effort has helped bring decision-makers together to assess, streamline, and expand PPM planning and programming throughout the country. The first joint PPM meeting was held to strengthen PPM activities, attended by representatives from all major partners and stakeholders, including the NTP. These committees will be critical to ensuring that project activities are being implemented in the most relevant and efficient way possible moving forward.



Photo: M. Dorgabekova

Given the growing challenge of multidrug and extensively drug-resistant tuberculosis in Bangladesh, PATH undertook high-level advocacy efforts with NTP and Ministry of Health and Family Welfare officials, and the process is underway, to make TB a notifiable disease in Bangladesh. PATH will continue to provide technical support to the NTP to fast-track the process and support NTP efforts.

Equipping laboratories, diagnosing more cases of multidrug-resistant tuberculosis in India



Photo credit: PATH

Ensuring that laboratories have the equipment, training, and procedures in place to diagnose TB, including drug-resistant forms, is critical to helping people access lifesaving treatment as quickly as possible. During the reporting period, PATH played a pivotal role in infrastructure upgrades in five laboratories (the Chandigarh Postgraduate Institute of Medical Education & Research; Dharampur, Patiala, and Aligarh Intermediate Reference Laboratories; and the Karnataka Institute of Medical Sciences, Hubli) for introduction of line probe assay. Among the five laboratories, four have completed proficiency testing; Aligarh is in process. Prior to the laboratory upgrades, MDR-TB diagnosis was not available in the project areas.

Once certified, these four upgraded laboratories will provide MDR-TB diagnostic services for a total population of about 30 million.

Universal access through integrated health delivery systems

Under the leadership of the Central TB Division, project partner Initiatives Inc., with support from PATH and WHO, is in the final stage of completion of Phase 3 of the Human Resources for Health pilot in four districts, an activity that was initiated in December 2012 to test district administrative and block program management integration. Pilot monitoring is underway, and despite the very short time frame for the pilot activity, some notable achievements have been made. District and block staff were oriented and Senior TB Supervisors have been appointed to the block level in all four districts. Key administrative processes have been improved. Block Medical Officers have begun taking ownership of the Revised National TB Control Program, and anecdotal evidence suggests that their involvement is pushing Primary Health Centre medical officers to incorporate increased TB-related activities.

We are now providing isolated wards for infectious cases, increasing sunlight into the rooms, increasing the amount of open areas, and changing the design of windows to improve air flow.