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USAID TUBERCULOSIS TASK ORDER 2015 PERFORMANCE EVALUATION

NOVEMBER 2013

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USAID TUBERCULOSIS TASK ORDER 2015

Performance Evaluation

Evaluation of the Activities, Operational Results, and Impact of USAID Support to TB Control through Task Order 2015 from 2009 to 2013 and Lessons Learned

NOVEMBER 2013

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ACRONYMS

ACSM	Advocacy, communication, and social mobilization
ARV	Anti-retroviral drugs
ACT!	Africa Coalition on TB
CAR	Central Asian Republics
CBO	Community-based organization
CDR	Case detection rate
COR	Contracting Officer's Representative
CPT	Cotrimozaxol preventive therapy
CTD	Central TB Division, Ministry of Health, India
DOT	Directly observed treatment
DOTS	Directly observed treatment, short course
DRC	Democratic Republic of Congo
EE	Eastern Europe
EQA	External quality assurance
FIND	Foundation for Innovative New Diagnostics
GH Tech	Global Health Technical Assistance Project Bridge IV
GFATM	Global Fund to Fight AIDS, TB and Malaria
GLC	Green Light Committee
HBC	High TB Burden Countries
HIV	Human immunodeficiency virus
IPC	Infection Prevention and Control
IPT	Isoniazid preventive therapy
ISTC	International Standards for TB Care
LED	Light emitting diode
LEP	Leprosy
M&E	Monitoring and evaluation
MDR-TB	Multi-drug resistant TB
MSH	Management Systems for Health
NTLCP	National Tuberculosis and Leprosy Control Program (Tanzania)
NTP	National Tuberculosis Program
PATH	Program for Appropriate Technology in Health
PIH	Partners in Health

PMDT	Programmatic management of drug resistant tuberculosis
PPM	Public-private mix
RDMA	USAID Regional Development Mission for Asia
RNTCP	Revised National Tuberculosis Control Programme (India)
SOP	Standard operating procedures
SOW	Scope of Work
STBP	Stop TB Partnership
TA	Technical assistance
TB TEAM	TB technical assistance cooperative mechanism
TFM	Transitional funding mechanism
TO	Task Order
ToT	Training of trainers
UCSF	University of California, San Francisco
UNION	International Union Against Tuberculosis and Lung Diseases
USAID	United States Agency for International Development
XDR-TB	Extensively Drug-resistant Tuberculosis

EXECUTIVE SUMMARY

This is an evaluation of the performance and lessons from the Program for Appropriate Technology in Health's (PATH) implementation of the TB TO 2015 Program since 2009. The main objectives were to determine if USAID-supported interventions increased TB case notification and successful treatment in the targeted areas. The purpose was to evaluate project performance with special attention to advocacy, communication, and social mobilization (ACSM) activities and to formulate recommendations to USAID for future TB projects. The report, prepared by a GH Tech consultant, is based on review of planning documents and reports from USAID, PATH, national programs, and other sources; interviews with staff and partners; and observations from site visits in Dar es Salaam, Tanzania.

The USAID Bureau for Global Health Office of Health, Infectious Diseases and Nutrition (USAID/GH/HIDN) awarded TB Task Order (TO) 2015 to PATH on September 30, 2009. The project is supported by international partners Management Systems for Health (MSH); University of California, San Francisco (UCSF); Dartmouth Medical School; Initiatives, Inc.; the American Society for Microbiology; Partners in Health (PIH); the Foundation for Innovative New Diagnostics (FIND); and Brigham and Women's Hospital, Inc. The five-year project has a ceiling of $58,389,014, of which $46,095,562 has been obligated. The TO accepts both core funding and field support. At USAID, the Contracting Officer's Representative (COR) is Elizabeth Pleuss and the Technical Advisor is YaDiul Mukadi; the Project Director at PATH is Lal Sadasivan. The contract began in October 2009 and will end in September 2014.

The overarching objective of the project is to support implementation and scale-up of the Stop TB Strategy and the Global Multi-drug Resistant-TB (MDR-TB) and Extensively Drug-Resistant-TB (XDR-TB) Response Plan 2007-2008, in order to reduce TB prevalence and deaths in USAID priority countries. The goal is to halve by 2015 TB prevalence and death rates in those countries relative to 1990 baselines. The USAID objective for this program is to achieve and sustain at least 70% case detection and 85% treatment success rates for new sputum smear-positive TB patients in those countries. The USAID TB program has the following key components:

- Accelerating detection and treatment of TB;
- Scaling up management of MDR-TB and XDR-TB;
- Addressing TB/HIV co-infection;
- Strengthening health systems and human resource capacity; and
- Developing and introducing new tools and improved approaches.

To accomplish these objectives, TB TO 2015 provides short-and long-term technical assistance (TA) to USAID country and regional Missions; provides global technical leadership to scale up the Stop TB Strategy and the Global MDR-TB and XDR-TB Response Plan (core work); and provides TA to countries preparing proposals to the Global Fund to Fight AIDS, TB and Malaria (GFATM). Activity areas in the core work are ACSM, MDR and XDR-TB, introduction of new tools, and GFATM TA. The basic assumptions are that development of human resources, particularly in ACSM, and introduction of new tools and approaches for TB control will improve the quality of care, reduce diagnostic delay, and increase cure, and as a consequence reduce TB prevalence and mortality.

In the first four years of the project (2009–13), PATH, with the guidance and approval of USAID, carried out activities in selected countries (the Democratic Republic of Congo [DRC], India, Tanzania, Mexico, Ukraine, and Vietnam); in Eastern Europe (Armenia, Azerbaijan, Belarus, Moldova, and Georgia, in addition to Ukraine); and in the Central Asian Republics (CAR). In addition PATH has implemented regional and inter-country activities (Africa, the Regional Development Mission of the Asia MDR model center); and has also created tools (ACSM training and monitoring and evaluation [M&E] materials, an MDR planning toolkit, TB/diabetes protocols, and infection control assessments) and tested interventions that have global application, such as case referral by private practitioners and pharmacies (see Chapter III, Findings, and Annex IV, Summary of Activities).

The main questions the evaluation was to answer were whether TB TO 2015 is on track to meet the expected results, the extent to which the project was effective in achieving objectives, factors for success and shortcomings, and which priorities and steps USAID should consider in future projects to support TB control. The current global changes in diagnostic technology, TB definitions, and cohort analysis will have major implications for the design of future projects.

The report discusses the USAID strategy and goals and support through TB TO 2015; PATH strategies and activities, intermediate results, operational outcomes, and the impact of interventions. The mixed methodology consisted of review of available reports with special attention to indicators applied, products, and results; guided personal and phone interviews; analysis of case detection and treatment outcome data from the areas supported; and direct observation and interviews in Dar es Salaam and surrounding areas in Tanzania. One limitation is that the epidemiological impact on TB transmission, prevalence, and mortality—the long-term goal of TB control—cannot be measured for short- or medium-term projects or for specific interventions.

The TB TO 2015 project incorporated activities in global leadership in support of the Stop TB strategy and the Global Plan for MDR-TB and supported TB control in countries of interest to USAID. At the global level, the project assessed the situation of ACSM in Africa and Asia; evaluated such interventions as case referral by private practitioners and pharmacies; developed tools for ACSM training and M&E that were revised, tested, and endorsed by the World Health Organization (WHO) and the Stop TB Partnership (Stop TB); provided inter-country and regional training on ACSM and infection control; drew up, published, and cobranded an MDR-TB planning toolkit; organized workshops to provide training and mobilize country TA requests; implemented regional and inter-country activities in Africa (such as the Africa Coalition on TB [ACT]), Eastern Europe [EE]/CAR, and the Regional Development Mission for Asia; assessed infection prevention and control (IPC) practices; supported GFATM applications and the GFATM transitional model; supported introduction of new diagnostic technology; and in Mexico drafted a protocol for introduction and evaluation of a TB/diabetes bidirectional screening model utilizing novel noninvasive technologies.

A number of international and national partners contributed to development of tools and country TA. Numerous people interviewed stated that the project's ACSM and MDR tools were very useful and have been adopted by countries and other partners.

Country support activities were carried out in DRC, India, Tanzania, Mexico, Ukraine, and Vietnam; Eastern Europe (Armenia, Azerbaijan, Belarus, Moldova, and Georgia, in addition to Ukraine) and CAR. The main local partner was always the National Tuberculosis Program

(NTP), complemented by civil society organizations (private providers, pharmacies, community-based organizations [CBOs]). Achievements in capacity building and TA were essentially measured through indicators of the quality of care of TB patients (number of TB cases diagnosed, treatment outcomes, HIV testing and treatment with antiretroviral drugs (ARVs), detection of MDR-TB, referrals by private practitioners and pharmacies, and management of pediatric TB). The reports to USAID show the program had operational impact in terms of increased capacity to control TB in the areas supported, compared with baseline data and NTP averages. In some countries the strategy and activities were successfully transferred to the local authorities at national or provincial (Vietnam) level, evidencing government commitment.

PATH TA was consistently considered of high quality, very well accepted (with the exception of DRC), and with excellent coordination with the national staff at all levels. The main strength was the capacity to establish good working relationship with the NTP, supporting operations on the ground with local staff, and the good quality of the tools developed for ACSM and programmatic management of drug-resistant TB (PMDT). Consortium partners supporting project country activities were usually involved only in specific interventions (such as laboratory, pediatric case management, limited demonstration areas, and training),

In general, implementation of the project was considered on track, though there were varying delays in some countries. Weaknesses mentioned in interviews were insufficient interaction of USAID with national programs before preparing the plan of action to harmonize USAID project priorities with NTP perceived needs; short-term financing that interfered with recruitment; and insufficient communication with consortium partners about progress in country support. USAID and PATH staff interviewed both expressed concern about delays in launching activities, mostly because multiple layers of approval were required from national and international agencies. Field observation in Tanzania showed the excellent collaboration with national staff at all levels and with community organizations, and the consistency of laboratory and patient records with data in the reports.

In conclusion, the TB TO 2015 Project seems to be on track to achieve its operational objectives in terms of all the key components listed, and it also seems to be a very good investment of USAID support that will have lasting impact on TB control globally as well as in some of the countries involved. It is too early to assess the epidemiologic objective of reducing TB prevalence and burden of disease; and the strategies used as models (the Stop TB Strategy and MDR-TB Global Response Plan 2007–08) do not prioritize interruption of transmission (screening suspects with microscopy, IPC, control of contacts) or prevention of MDR-TB, concentrating instead on patient management. ACSM has been successfully used to support TA and to build national capacity. TA quality was good, and coordination with and support to the NTPs were in general excellent.

RECOMMENDATIONS

PATH

1. In the final year of the project, document and publish experiences and draft a plan to ensure that achievements in the area supported are sustainable.
2. Draw up plans to ensure sustainability of the achievements through the NTP and concentrate ACSM activities on mobilizing national and provincial resources.
3. Support the NTP in adopting M&E operational indicators for detecting suspects and cases, since WHO has just recommended phase-out of the case detection rate (CDR).

USAID

1. For future country support projects, prepare a framework to guide mission buy-in based on current experience, including M&E formats focusing on products.
2. Coordinate with NTP managers before preparing proposed plans of action to align priorities and scope.
3. Give higher priority to activities designed to reduce TB transmission and burden (intensified detection of highly infectious cases, infection control, screening of contacts and congregate settings), as stated in the DOTS (directly observed treatment, short-course) strategy; and activities designed to prevent MDR/XDR-TB by improving patient access and adherence to treatment.
4. Coordinate with other partners, especially WHO and the GFATM, to select and recommend practical indicators for M&E of case detection by microscopy and bacteriology, including new technologies.
5. Revise the current indicators: delete CDR and add coverage (geographical and facilities), numbers of suspected cases examined and smear-positives detected (trend), and proportion of bacteriologically confirmed pulmonary cases diagnosed.
6. Include a formulation of a phase-out strategy in the scope of work.

I. INTRODUCTION AND BACKGROUND

This report is an evaluation of the performance of TB TO 2015 and lessons learned from the support for tuberculosis control provided through the Program for Appropriate Technology in Health (PATH) from 2009 to date. The main objectives were to determine whether or not USAID-supported interventions helped to increase tuberculosis (TB) case notification and successful treatment outcomes in the targeted geographic areas. The purposes of this evaluation activity were to (1) evaluate performance of the project to date, especially the success and impact of its advocacy, communication, and social mobilization (ACSM) activities; and (2) provide USAID with recommendations to inform future TB projects and activities. This report, prepared by a GH Tech consultant, is based on the review of planning documents and reports from USAID, PATH, national programs, and other sources; interviews with staff and partners; and field observations in Dar es Salaam, Tanzania. (See Annex I for the evaluation Statement of Work, Annex III for sources of information, and Annex IV for interview questionnaires).

As part of its efforts to combat TB worldwide, on September 30, 2009, the USAID Bureau for Global Health Office of Health, Infectious Diseases and Nutrition (USAID/GH/HIDN) awarded to PATH TB Task Order 1 (GHN-I-00-09-00006 #1) under the TB IQC, TB Task Order 2015. The TB TO 2015 Project is supported by a team of international partners consisting of Management Sciences for Health (MSH); University of California, San Francisco (UCSF); Dartmouth Medical School; Initiatives, Inc.; the American Society for Microbiology; Partners in Health (PIH); the Foundation for Innovative New Diagnostics (FIND); and Brigham and Women's Hospital, Inc. The five-year TB TO 2015 Project has a ceiling of $58,389,014, of which $46,095,562 has so far been obligated. The TO accepts both core funding and field support. At USAID the Contracting Officer's Representative (COR) is Elizabeth Pleuss and the Technical Advisor is YaDiul Mukadi; at PATH, the Project Director is Lal Sadasivan. The contract began in October 2009 and will end in September 2014.

The overarching objective of the project is to support implementation and scale-up of the Stop TB Strategy and the Global Multi-drug Resistant-TB (MDR-TB) and Extensively Drug-Resistant-TB (XDR-TB) Response Plan 2007-2008, to reduce TB prevalence and deaths in USAID priority countries. The USAID TB program consists of the following components:

- Accelerating detection and treatment of TB;
- Scaling up management of MDR-TB and XDR-TB;
- Addressing TB/HIV co-infection;
- Strengthening health systems and human resource capacity; and
- Developing and introduce new tools and improved approaches.

The basic assumptions are that building up human resources, particularly in ACSM, and using new tools and approaches for TB control will improve the quality of care, reduce diagnostic delay, increase cures, and as a consequence reduce TB prevalence and mortality.

In the first four years of the project (2009–13), PATH, with the guidance and approval of USAID, carried out activities in specified countries (the Democratic Republic of Congo [DRC], India, Tanzania, Mexico, Ukraine, and Vietnam), in Eastern Europe (EE: Armenia, Azerbaijan,

Belarus, Moldova, and Georgia, in addition to Ukraine); and in the Central Asian Republics (CAR). PATH has also undertaken activities under TB TO 2015 that have regional and inter-country coverage (Africa, the Asia MDR model center); and created tools (ACSM training and monitoring and evaluation (M&E) materials, an MDR planning toolkit, TB/diabetes protocols, infection control assessments) and tested interventions that have global application, such as case referral by private practitioners and pharmacies (see Chapter III for findings and Annex V for a summary of activities).

The main questions the evaluation was to answer were whether the project is on track to produce the expected results, the extent to which it was effective in achieving the objectives, factors in successes and shortcomings, and steps USAID should take in future TB control projects.

The report discusses USAID strategy and goals and support through TB TO 2015; PATH strategies and activities; intermediate results; operational outcomes; and the impact of the interventions. The methodology included review of available reports with special attention to the indicators used, the products, and the results; guided personal and phone interviews; analysis of case detection and treatment outcome data from supported areas; and direct observation and interviews in Tanzania.

Annex II discusses whether USAID's current indicators are appropriate for measuring the impact of TB case detection activities and limitations on achieving and evaluating their epidemiological impact. More practical indicators that some countries use that are based on data already available are discussed and incorporated into the recommendations.

The evaluation is intended for use by USAID in defining priorities for the last year of project activities, in planning future support to TB control, and in selecting interventions and indicators for monitoring their operational and epidemiological impact. Recent WHO changes in TB definitions and cohort analysis will have major implications for the design of future projects (Annex II).

II. EVALUATION METHODS AND LIMITATIONS

In this evaluation. assessment of technical assistance (TA) and global leadership to check if the project is on track (questions [a] and [b] of the SOW) was based on a desk review of PATH workplans and activities reports provided to USAID (see Annex IV for a list of documents consulted and Annex V for a brief summary of key activities and achievements). The reports were of good quality, contained quantitative data, and were complemented by personal or phone interviews to elicit qualitative information from staff of USAID missions, PATH, and other partners. USAID selected the persons to be interviewed, in consultation with PATH and coordinated by GH Tech. The consultant also carried out field observations and interviews in Dar es Salaam, Tanzania, one of the areas supported; the local USAID mission and PATH staff selected the sites and health facilities visited on the basis on accessibility at the time available. The main intermediate TA results were to increase country capacity (ACSM, laboratory, guidelines) and develop training and M&E tools.

Effectiveness in achieving project objectives was assessed based on data from the PATH reports for the areas supported, national data on cases reported, and treatment outcomes published by WHO (WHO Global TB Report 2013 and 2010) and by the Government of India (TB India 2012 and 2013, Annual Status Reports, Revised National Tuberculosis Control Programme [RNTCP]). This information was related to the Scope of Work (SOW) questions (2.c) - increased detection rates, and (2.d) - increased treatment success rates.

Evidence of achievements for questions (2.e) - reduction in TB prevalence, and (2.f) - reduction in deaths due to TB could not be assessed because the indicators are inappropriate for projects of limited coverage and duration and because even at a national level the impact of TB interventions cannot be assigned to a particular intervention within a program. At the national level, measurement of TB prevalence and mortality requires expensive, long-term surveys unless the country has good registration of death certificates. Most of the national and global targets and evaluation of achievements are based on epidemiological models that do not apply to small populations. Though reduction of deaths in treated patients will have some impact on TB mortality, these are only a small fraction of TB mortality.

Conclusions and recommendations for questions (3) - key factors in success, (4) - key factors in shortcomings, and (5) - steps to address them in the last year of the project and in future projects were based on information collected, experience from national TB programs, and international recommendations. The findings in Chapter III are mainly based on information provided in the reports and the conclusions in Chapter IV are strongly influenced by the statements of USAID, PATH, and other staff interviewed as well as by the consultant's experience with similar evaluations.

A major limitation of the evaluation was that although the USAID project strategy was guided by the Stop TB strategy, the Global MDR/XDR-TB Response Plan 2007–08, and the US Government TB Strategy, which aim to improve the quality of TB care but give low priority to reducing TB transmission and prevalence, nevertheless the SOW questions covered assessment of epidemiological impact (Annex I).

III. FINDINGS

In response to the SOW for the TB TO 2015 project, PATH has carried out global, regional, inter-country, and national activities. Countries were selected for the national activities on the basis of the interests of USAID and the US Government and of the host country government. The project is now in the fifth year. The current evaluation aims to provide guidance for the final activities and for development of future USAID support for TB control. PATH drew up plans in coordination with USAID and provided regular and timely reports of activities, including useful information to monitor and evaluate implementation (see Annex III for representative reports and Annex IV for a summary of key activities). Interviews (Annex III) provided information on strategies and coordination of country support plus additional data; and the field visit to Tanzania (Annex III) allowed for observation of PATH and National TB and Leprosy Control Program (NTLCP) activities and laboratory and patient registers.

At the global and regional levels, the main project activities were creation of tools for ACSM (curriculum, M&E guide) and a planning tool for managing MDR-TB; and workshops for ACSM training and to mobilize involvement and requests for TA from country TB programs. The tools and workshops resulted in endorsement by WHO and the Stop TB Partnership (Stop TB), mobilization of resources from the Global Fund to Fight AIDS, TB and Malaria (GFATM) and TB Reach, and country requests for TA. One regional product was creation of an inter-country civil society NGO in Africa (ACT! – the African Coalition on TB). In EE and CAR there was a special project to increase national capacity for ACSM that included assessment, regional training workshops (Kyiv, Dushanbe, Tbilisi), and national workshops in response to country TA requests. Azerbaijan, Belarus, Georgia, Kazakhstan, Tajikistan, and Turkmenistan drew up national ACSM strategies and seven countries drafted plans for monitoring and evaluation (M&E).

MDR-TB capacity was assessed at the request of the USAID Regional Development Mission for Asia (RDMA). A study protocol for introducing and evaluating a TB/diabetes bidirectional screening model utilizing novel non-invasive technologies in Mexico can be used in numerous countries, since diabetes prevalence is growing due to changes in dietary habits and food availability. Diabetes may be the next co-epidemic: in Mexico the proportion of TB/diabetes grew 190% from 2003 to 2011, reaching 20.9% of all TB cases[1]; in India RNTCP has mandated that all TB patients be tested for diabetes mellitus.

Regional activities to mobilize national interest were successful only when the NTP manager was directly involved or had participated in the workshops, resulting in ownership of the proposed plans of activities. The creation of ACT! is a major achievement and the organization is active, but its sustainability will depend on donor support, for which registration is necessary. This is complex for a regional NGO; registration in Zambia is in process.

For individual countries, analysis of semi-annual, annual, and product-specific reports shows that initial activities were concentrated on assessment of the situation, improvement of national capacity, and development of instruments, particularly for ACSM, and establishing pilot project sites. In consequence, most of the initial reports use administrative process indicators of

[1] Situación actual de la tuberculosis en Mexico. Mexico NTP, July 9–13, 2012, Mexico City.

achievement for planned activities (assessments, training of trainers, workshops, preparation of tools for ACSM training, and M&E).

After the initial phase and with USAID guidance, the reports concentrated on products and applied indicators for operational results (see Box 1). The indicators of attainments of the project selected do not include data on microscopy of suspected TB cases[2] (the main source of infection); quality of clinical diagnosis (proportion of cases confirmed by microscopy or bacteriology among pulmonary TB cases reported), or geographical/population coverage.

ACSM activities were complemented by TA to support use of the increased capacity in selected geographical areas, and by support to NTPs to prepare plans of action; complete or revise guidelines, training materials, and curricula; and adopt methods for M&E and tools for PMDT. PATH and their partner, Dartmouth, have assessed practices in pediatric care of TB and helped draw up global and national guidelines (Tanzania, DRC). A major activity has been assessment of program and laboratory capacity for TB/HIV management.

The recent PATH project reports include achievements as a result of previous activities, but the outcomes cannot be attributed to any particular component (such as ACSM, TA). Examples of impact of country interventions are discussed next.

TANZANIA

In Tanzania, the number of TB pulmonary and total cases reported in the areas supported increased 7%. However, the number of cases reported for the country diminished, which suggests better case detection in the target areas. Of particular interest is that the increase in new pulmonary smear-positives—the main sources of infection—increased 15%, indicating increased referral of suspects and more use of microscopy to detect and diagnose pulmonary TB (Figure 1 and Table 1). Confirmation of pulmonary cases by microscopy increased from 53% to 57%, suggesting improvement in the quality of diagnosis. For the same period the treatment success rate among new smear-positive cases in supported areas increased 5%, from 82% to 87% and in the country as a whole from 85% to 87%. A similar result was seen in the Arusha region after PATH TA with MSH led to standardizing operating procedures for case detection. In two successive quarters there was an increase of 2% in total TB and 33% in highly infectious cases reported (Figure 2). In Arusha and Meru, in a one-year period treatment success increased rapidly (Figure 3).

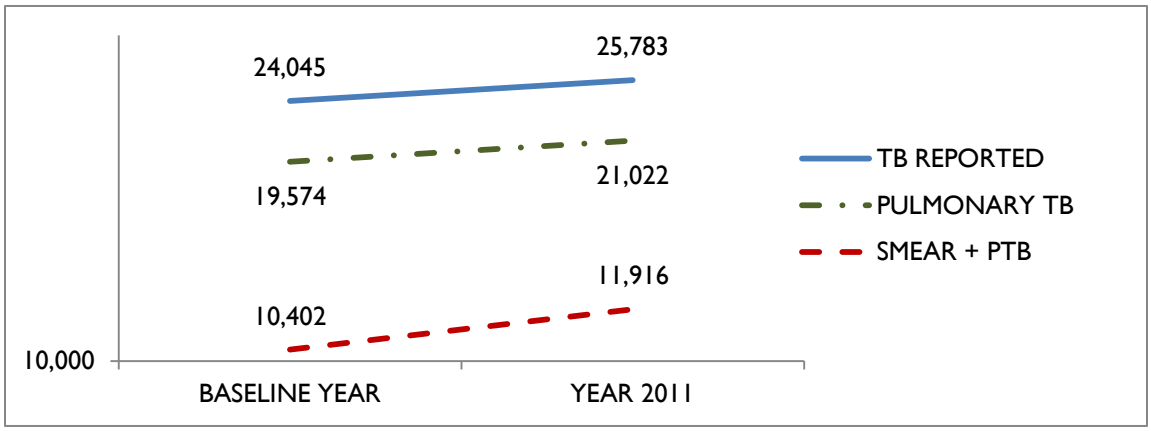
Box 1. Current Indicators (Baseline and Last Year Available)

- Number of new smear-positive cases detected
- Smear-positive case detection rate (CDR)
- Number of smear-positive TB cases successfully treated
- Treatment success rate in new smear-positive cases
- Number of MDR-TB cases diagnosed
- Number of MDR-TB that initiated treatment
- Number and percent of TB patients tested for HIV
- Number of TB/HIV patients on ART
- Number of health care providers trained on TB

[2] In this document the word "suspect" includes all persons with symptoms or signs suggestive of TB (particularly persistent cough). The current designation as "presumptive TB" indicates that TB is the most probable cause (Encarta), and this is not true even in high-TB-burden countries.

Deaths during treatment diminished from 2002 to 2008 and are now quite low. Important factors in reducing deaths have been the rapid expansion of HIV testing, cotrimoxazol prophylaxis treatment (CPT) and antiretroviral treatment (ARV), particularly in regions covered by the project that have PEPFAR funding (95% of TB patients were offered testing, 80% of those positive received CPT, 67% of those with ARV) but also in the country as a whole. Further treatment success will have decreasing cost-benefits and the challenge is to maintain this level and to expand coverage of NTP activities.

Figure 1. Tanzania: Total Pulmonary and Smear-Positive Pulmonary TB Reported Annually in the USAID-Supported Areas from the Baseline Year* to 2011



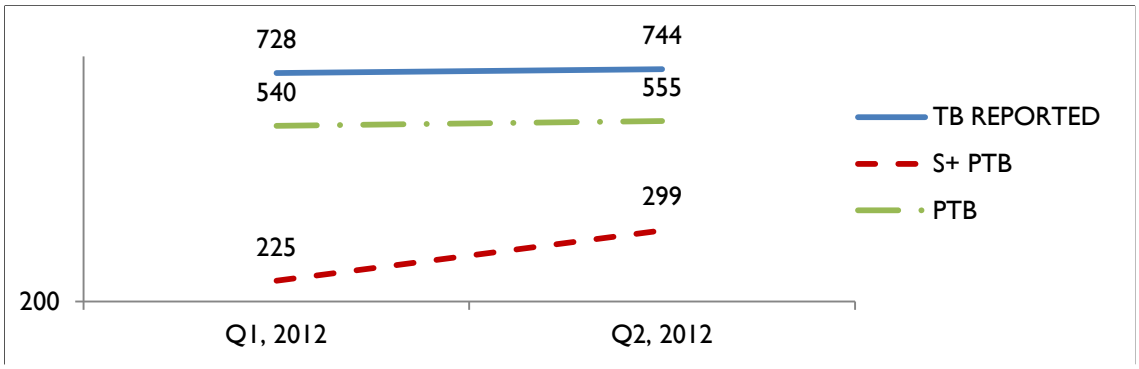
** 2006 for Arusha, Dar es Salaam, Mwanza and Pwani, 2008 for Zanzibar and 2010 for Kilimanjaro.*
Source: PATH Report October 2013-September 2012.

Table 1. TB Case Notification and Treatment Outcomes in Tanzania Project Sites, Baseline Year* and 2011

	Total TB	Pulmonary TB (PTB)	New Smear + PTB	Smear + as Percent of PTB	Treatment Success (Percent)
Baseline year*	24, 045	19,524	10,402	53	82
2011	25,783	21,012	11,916	57	87
% increase	**7%**	**8%**	**15%**	**8%**	**5%**

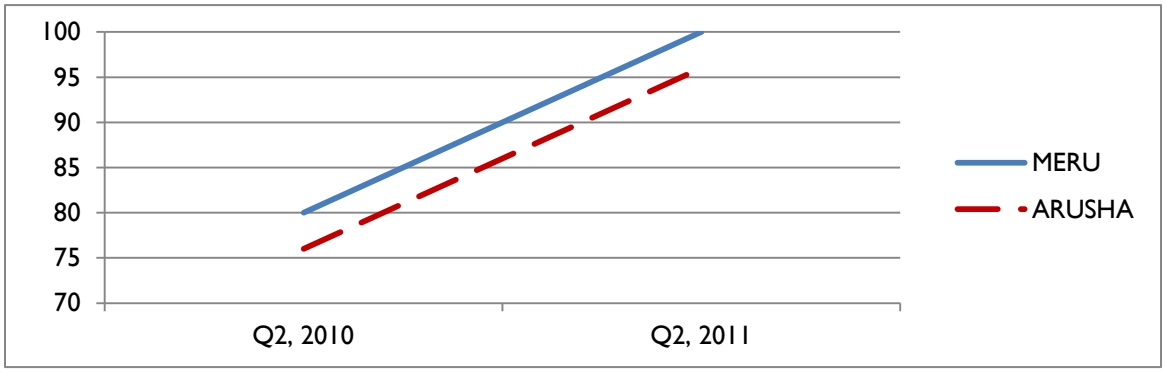
** 2006 for Arusha, Dar es Salaam, Mwanza, and Pwani; 2008 for Zanzibar; 2010 for Kilimanjaro.*
Source: PATH Report October 2011-September 2012

Figure 2. Arusha Region, Tanzania: Total Pulmonary and Smear-Positive Pulmonary TB Reported, First and Second Quarters, 2012



Source: PATH report October 2011—September 2012

Figure 3. Arusha and Meru, Tanzania: Successful Treatment Outcomes, New Smear-positive TB, Quarter 2, 2010, to Quarter 2, 2011 (Percent)

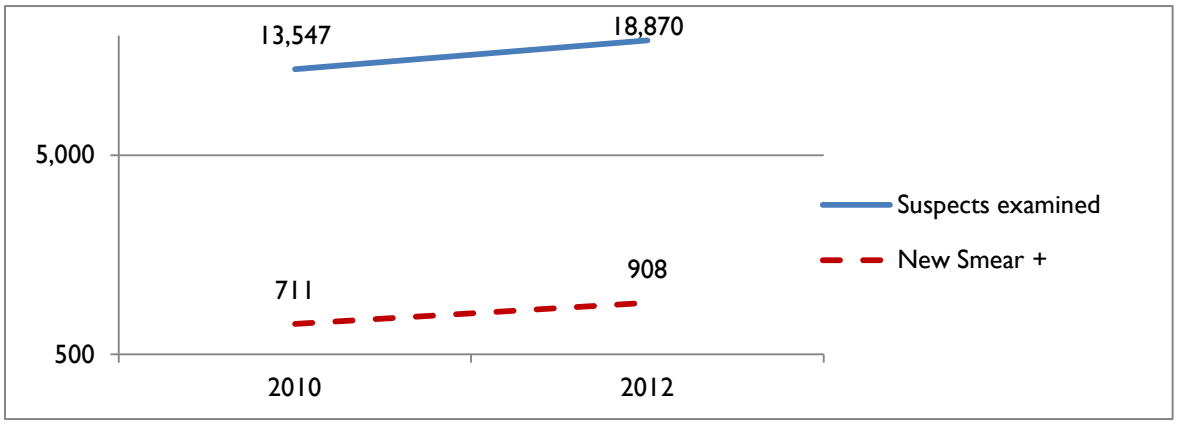


Source: PATH report October 2011—September 2012.

MEXICO

In Mexico, activities to involve private and social security health providers in TB case detection covered 213 facilities in 12 states. In two years, the number of suspected cases examined increased 39% and smear-positive cases detected increased 28% (Figure 4). These results show the effect of involvement of private providers in referring TB suspects and compare favorably with the decreasing national numbers of persons examined in the last decade (250,000 per year in the last five years, in spite of population growth).

Figure 4. Mexico: Suspects Examined by Sputum Microscopy and Smear-Positive TB Cases Detected in Project-Supported Areas, 2010 and 2012

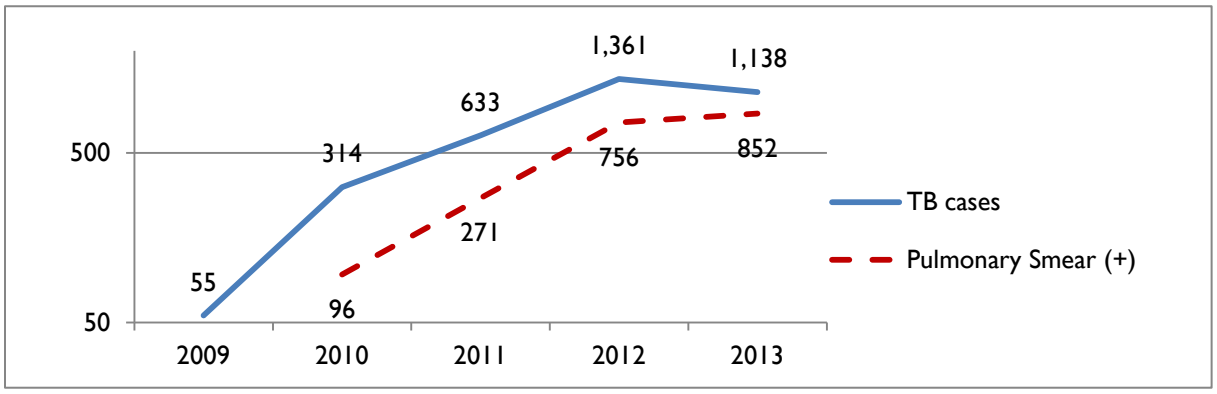


Source: Antonio Martinez, "Monitoring and Evaluation of Integrated ACSM and PPM in Mexico. Presentation, Mexico City, 2 November 2012.

VIETNAM

In Vietnam, a PPM referral model involving pharmacies started in three districts in 2008, with private clinics added in 2009 and non-NTP hospitals in 2010, starting in one province and expanding to four. By 2013, the model had extended coverage to 21 districts and was taken up by the local government of one province. The program also tested a diagnostic model in 2010 that was expanded in 2013. Between June 2008 and September 2013, nearly 32,000 suspected cases were referred and more than 21,000 of them had been received by TB facilities; 3,500 cases were diagnosed, of which 1,975 were sputum smear-positive (56%); also 2,938 TB cases were tested for HIV (84%) and 105 were positive. National public-private mix (PPM) guidelines were approved in January 2013, with support of the GFATM Round 9 (R9). The main challenges are sustaining the engagement of the private sector, the absence of a patient referral system between private and public providers, and limited resources for expanding PPM and integrating it into provincial TB plans of action.

Figure 5. Vietnam: TB cases and Sputum Smear-positive TB Patients Detected by PPM after Strengthening the TB/HIV Program in Vietnam



Source: PATH Final review workshop, November 1, 2013, Ho Chi Minh City, Vietnam.

INDIA

India presented a complex situation in terms of coordinating activities with the main partners, the Central TB Division (CTD) and WHO. Activities required a long process of consultation and approvals on all sides, with innumerable opportunities for delay and miscommunication. However, the RNTCP gradually accepted PATH as a partner and USAID has facilitated coordination. The main activities have been to build up laboratories working with several partners (CTD, USAID, PATH, WHO, the World Bank, and FIND), giving support for upgrades, accreditation, equipment, and guidelines for maintaining equipment. PATH has also helped to increase national and state capacity for infection control and trained public and civil society staff in state and district ACSM and PPM interventions.

DEMOCRATIC REPUBLIC OF CONGO

In the DRC, PATH provided support to seven TB departments in five provinces, two of them through MSH, which is also a partner in Tanzania; and helped improve management of MDR-TB (sputum collection, transportation guidelines, PMDT plan, data collection, patient tracking). The lack of security, long distances to health facilities, and problems of coordination between the NTP, USAID, and PATH in the initial years of the project delayed activities and, although improved, coordination among partners (NTP, PATH, USAID) is not yet satisfactory. However, major progress was observed in project areas between 2010 and 2012 in the proportion of TB patients tested for HIV (double the national rate); the proportion of those who received CPT and ARV; and management of MDR-TB patients.

INTERVIEWS

Interviews based on standard questionnaires (Annex III) with staff from USAID, PATH, international partners, and Tanzania's national TB and leprosy program provided information on perceptions of strategies, TA provision and acceptance, methods and indicators to measure the impact of activities, the general perception of TA achievements and of ACSM, and priorities for future USAID TB projects.

The interviews elicited a consensus that the main strategic priority of the USAID TB TO 2015 was to increase global, inter-country, and country capacity to improve the quality of care (diagnosis, treatment, PMDT, and TB/HIV) rather than reducing TB transmission and its burden. Only rarely was TB reduction mentioned as the main priority. Achievements in capacity building were essentially measured through indicators of the quality of care of TB patients (total TB cases diagnosed, treatment outcomes, HIV testing and ARV treatment, detection of MDR-TB, referrals by private practitioners and pharmacies, and management of pediatric TB). However, several country projects also used data on suspected cases examined and smear-positive TB cases detected (see Figures 1–5). As mentioned, measurement of short-term impact on TB prevalence or mortality is not possible; improvement of care will reduce human suffering and patent deaths and it is assumed that will ultimately have an effect on the TB burden.

PATH TA was consistently considered of high quality, very well-accepted, and with very good coordination with the national staff at all levels (except in the DRC). The ACSM and MDR tools were considered very useful and adopted by other countries and partners. The main strengths seen in PATH country support were the capacity to establish working relationships with the NTP and support operations on the ground with local staff, and the quality of the tools it developed for ACSM and PMDT. Information obtained in the areas supported is also useful to evaluate interventions and recommend expansion to the NTPs; however, there are staff and

financial limitations for sustainability. The incorporation of tested strategies into the NTP plans of action in such countries as Vietnam and Tanzania is an indicator of political commitment.

Numerous international and national partners were involved in development of tools and provision of country TA. The international partners had roles in specific components and limited involvement in country support. Their priorities varied according to their strengths. The main local partner was always the NTP, complemented by civil society organizations (private providers, pharmacies, community-based organizations [CBOs]). In general, implementation of the project was considered on track, though with delays in some countries. The PATH scope of work was quite variable, from focused interventions (e.g., RDMA) to wide-scale interventions (e.g., Tanzania), depending on the interests of the NTP and the USAID Mission.

An identified weakness in coordination was the insufficient initial interaction of USAID and the national programs before the plans of action were prepared. Friction was frequent due to differences between USAID priorities (global or Mission) and the needs as perceived by the NTP, with the implementing agency caught between. Insufficient exchange of information with other international partners was also mentioned as a weakness. USAID and PATH staff interviewed expressed concern about delays in getting activities underway—mostly due to the need for multiple layers of approval (national authorities, Missions, HQ); difficulty in recruiting and retaining local qualified staff for a limited term; and a financing mechanism that was less flexible than those for cooperative projects.

FIELD OBSERVATION

Field observation in areas near Dar es Salaam, Tanzania, identified excellent collaboration with national staff (TB program supervisors designated as both PATH TB/HIV coordinators and NTP TB/leprosy coordinators) and with community organizations. It was also possible to check the TB patient and microscopy registers and interview local staff from USAID, PATH, MSH and the national TB and leprosy control program. A key observation was that the average age at diagnosis of TB cases is quite high in comparison to the age of the population, suggesting a reduction in transmission. In spite of the very high prevalence of HIV infection in TB cases, a high proportion of pulmonary TB is confirmed by microscopy; there are few deaths during treatment; and failures and defaults are also low. The proportion of extra-pulmonary TB is high, as can be expected with high HIV prevalence. The number of suspects screened is increasing, particularly in areas with PPM initiatives, and the smear-positivity observed is reasonable (about 5%). However, few suspected cases in young adults are detected and examined; this may be due to the type of facilities visited (primary health care outpatient facilities and rural hospitals) but should be analyzed in urban hospitals.

Community organizations and volunteers support ACSM in congregate settings, schools, factories, and health facilities; accompany patients home; recover interrupters; and follow up contacts. There is good mobilization of district and ward community leaders. The challenges are usual for this type of organization: retention of volunteers, long distances to patient homes, and limited NTP financial and staffing capacity to absorb and expand successful experiences when external support ends.

IV. CONCLUSIONS AND LESSONS LEARNED

The TB TO 2015 SOWs for country support were determined by USAID Missions and NTP requests. The final format was reached in discussions between HQ and the missions, but there was no specific guiding framework and often interaction between USAID and the NTP to agree on priorities before preparing the plans of action was insufficient. As a result, the country plans vary widely in scope, from long lists difficult to implement in the given time to very specific limited interventions. The guarantee of USAID financial support only year by year is a barrier to planning and to recruiting and retaining qualified staff.

In general, the project was intended to complement and leverage other funding sources (PEPFAR, GFATM) and support activities not covered by other sources, such as ACSM. There was a very rapid change in the quality and scope of the SOWs and a positive trend from assessment and training to development of tools to M&E of products. There was no initial framework to guide missions in selecting interventions; and priority was given to measurable targets in quality of care more than to improving basic DOTS. Medium-term results and basing the project on the Stop TB Strategy and Global MDR Plan led to giving priority to quality of care (treatment success, case detection of all forms, TB/HIV, PMDT, pediatric care) and building national capacity rather than to improving basic interventions to prevent transmission, such as infection control and microscopy screening of suspected cases and contacts.

These observations are important for future USAID projects to support TB control. The emphasis of the current project was mainly on increasing capacity for quality of care and patient management (diagnosis including identification of HIV and MDR and effective treatment, ACSM to involve the community and private providers, new tools, approaches for TB/diabetes). Projects to reduce TB transmission and prevalence, an objective of the DOTS strategy and a global public health priority, should give priority to identifying the main sources of infection (microscopy screening of suspects, mainly adults attending health facilities for any reason, and contacts and congregated populations such as prisons). Referral of suspects by private providers (medical, pharmacy) and the community as developed and carried out by the project contributes substantially to detection of sources but should be complemented by sputum microscopy. The new diagnostic GeneXpert technology will improve diagnosis but does not differentiate patients by infectiousness; it still has limited coverage and the cost of cartridges is heavy.

The USAID project is the only mechanism to support ACSM. In practice, building ACSM capacity consisted of supporting TA and mainly focused on involving communities and specific groups (private providers, pharmacies) rather than mobilizing political commitment and national financing and staffing for the program—a priority, according to USAID staff, and a traditional function of ACSM that was not specifically included in the TB TO 2015 SOW. PATH was successful in developing tools, increasing global and national capacity, and identifying country needs, but NTP adoption of the proven strategies was conditioned on participation of the NTP manager in the ACSM workshops, which did not happen in all targeted countries. Sustainability depends on incorporation of ACSM into the national strategy for every component of the NTP so that local resources are allocated and the results can be expanded and maintained with less or no external support. Project pilot experiences were adopted by local authorities in some

countries (Vietnam, India, Tanzania), which showed political commitment. A current priority is to explore methods to reduce the potential for damage when the end of the project interrupts support.

A PATH report to USAID summarizes documented lessons from country support and there were presentations at the UNION Conferences, but the information is partial and dissemination of reports of this type is limited. The experiences should be further documented for publication.

CHALLENGES

1. The impact of interventions that have limited geographical and population coverage on the national and global epidemic might be small unless NTPs adopt the strategies, expand coverage, and ensure sustainable finances and staffing. Particularly, when external resources dwindle, ACSM will be competing with other NTP priorities.

2. Appropriate indicators to monitor and evaluate the short- and medium-term interventions of externally supported projects are not used consistently by partner agencies and donors; and regular use by the NTP at all levels is limited to only a few countries. Currently WHO does not have indicators to measure case detection efforts and has recommended dropping use of the CDR. That leaves countries and donor organizations without guidance for measuring progress in detection, the main current priority if treatment outcome is good.

An acceptable alternative is to measure efforts to detect TB cases, in particular the most infectious, sputum smear-positive pulmonary TB. This is done systematically by good national programs like those of Peru and India (Annex V, Figures 1-2) but many programs, like Mexico's, did not adopt the experience of their pilot areas and the capacity developed (Annex V, Figure 3).

The data required are available in country microscopy registers; it is requested by the WHO registration and reporting system; and it is valid from health facility to national level. Yet it is not routinely used or included by WHO in its TB information system. The new WHO definitions for cohort analysis will have consequences for M&E and for TB control priorities: success will be measured on bacteriologically confirmed new cases (including microscopy, culture, and new rapid methods and independent of starting treatment). This will lower the priority of smear-positive infectious cases unless a country or a donor discriminates in favor of that group. The most practical indicators for case detection are the number of suspected cases examined by microscopy (public health) or by bacteriology (clinical) and the proportion of them that are positive (confirmed). The new methods will help to improve the quality of clinical diagnosis by excluding false diagnoses, and the technology cost (mainly for cartridges) should decrease, but expansion will be slow because many NTPs do not have the financial resources to sustain the system.

Lessons learned for future projects can be summarized as follows:

- USAID should give priority to reducing transmission through improved basic DOTS, and add an indicator on suspected cases examined by microscopy (particularly as CDR is now obsolete).
- USAID should guide Missions to improve consultation with NTPs before plans of action are drawn up.
- NTP managers should participate in inter-country workshops to ensure their involvement.
- Phase-out and transfer of responsibility to NTP should be planned.

- Successful experiences should be documented for publication as part of the SOW.
- Tools developed should be adapted for use in-country, without too many global revisions.
- The aim of USAID country support should be national coverage through the NTP soon after the strategies are proven in pilot areas.
- Close cooperation with the NTP at field level is a key to success.

In conclusion, the TB TO 2015 project appears to be a very good USAID investment that will have lasting impact on TB control globally and in some of the countries targeted.

V. RECOMMENDATIONS

PATH

1. In the last year of the project, document and publish its experiences and draw up a plan to ensure sustainability of the achievements in the areas supported.
2. Draft plans to ensure sustainability of the achievements through the NTP and concentrate ACSM activities on mobilizing national and provincial resources for the program.
3. Support the NTP to adopt M&E operational indicators for detection of suspects and cases, in view of the WHO, phase-out of the CDR.

USAID

1. For future country support projects, prepare a framework as guidance for mission buy-in, including M&E formats focusing on products, based on the current experience.
2. Coordinate with NTP managers before preparing proposed plans of action, to match priorities and scope.
3. Give higher priority to activities leading to reduction of TB transmission and burden (intensified detection of highly infectious cases, infection control, screening of contacts and congregate settings), as stated in the DOTS strategy; and to the prevention of MDR/XDR-TB by improving patient access and adherence to treatment.
4. Coordinate with other partners (in particular, WHO and the GFATM) to select and recommend practical indicators for M&E of case detection by microscopy and by bacteriology, including new technologies.
5. Revise the current indicators, deleting CDR and incorporating coverage (geographical and facilities), number of suspected cases examined and number of smear-positive cases detected (trend), and proportion bacteriologically confirmed among pulmonary cases diagnosed.
6. Include a formulation of a phase-out strategy in the scope of work.

ANNEX I. SCOPE OF WORK

Global Health Technical Assistance Bridge Project
GH Tech
Contract No. AID-OAA-C-13-00113

SCOPE OF WORK

(10/8/13)

FINAL

I. TITLE: TB TASK ORDER 2015 PROJECT PERFORMANCE EVALUATION

Contract: Global Health Technical Assistance Project Bridge IV (GH Tech)

II. PERFORMANCE PERIOD

The assignment will be conducted fromOctober 2013 through January 2014, with the consultant's level of effort of 36 days over the period of October through December 2013. A six day workweek is not approved for this assignment.

III. FUNDING SOURCE

USAID/GH

IV. PURPOSE OF ASSIGNMENT

The U.S. Agency for International Development Global Health Bureau (USAID/GH) seeks the services of GH Tech to conduct a comprehensive evaluation of the performance of and lessons learned by a USAID tuberculosis program implemented by a partner, PATH (2009–present). This evaluation will determine whether or not USAID-supported interventions have contributed to increased TB case notification and successful treatment outcomes in the targeted geographic areas where PATH has implemented activities.

The purpose of this activity is twofold;

1. Conduct a performance evaluation of TB TO 2015 to date, with a special focus on the success and impact of the Advocacy, Communication, and Social Mobilization (ACSM) activities.
2. Provide recommendations to USAID to inform future TB project and activity programming.

V. BACKGROUND

As part of its efforts to combat tuberculosis (TB) worldwide, the USAID/GH Office of Health, Infectious Diseases and Nutrition (USAID/GH/HIDN) awarded TB Task Order 1 (GHN-I-00-09-00006 #1) under the TB IQC, TB Task Order 2015, to PATH (Programming Appropriate Technologies for Health) on September 30, 2009. The TB TO 2015 Project is supported by a highly qualified team of international partners, including Management Sciences for Health; University of California, San Francisco; Dartmouth Medical School; Initiatives, Inc.; the American

Society for Microbiology; Partners in Health; the Foundation for Innovative New Diagnostics; and Brigham and Women's Hospital, Inc. The five-year TB TO 2015 Project has a ceiling of $58,389,014; to date, $46,095,562 has been obligated to the contract. The TO accepts both core funding and field support. The Contracting Officer's Representative (COR) for this contract is Elizabeth Pleuss, the Technical Advisor is YaDiul Mukadi, both at USAID, and the Project Director is Lal Sadasivan at PATH. The contract started in October 2009 and will finish in September 2014.

The Project's overall objective is to support the implementation and scale-up of the Stop TB Strategy and the Global MDR-TB and XDR-TB Response Plan 2007–2008 to increase detection and successful treatment of TB and to achieve reductions in TB prevalence and deaths in USAID priority countries. USAID supports the implementation of the Stop TB Strategy and contributes to the global reduction of morbidity and mortality associated with tuberculosis. Consistent with the Global Plan 2006–15, USAID's goal is:

- By 2015, to halve TB prevalence and death rates in USAID priority countries relative to 1990 baselines.

To achieve this goal, USAID's programmatic objective is to achieve and sustain at least 70% case detection and 85% treatment success rates for new sputum smear-positive TB patients in USAID priority countries.

USAID's TB program consists of the following key components, all in accordance with the Stop TB Strategy:

- Accelerated detection and treatment of TB;
- Scaled-up management of MDR-TB and XDR-TB;
- Addressing TB/HIV co-infection;
- Strengthening health systems and human resource capacity; and
- Developing and introducing new tools and improved approaches.

To address the growing threat of MDR- and XDR-TB, USAID also supports the implementation of activities set forth in the Global MDR-TB and XDR-TB Response plan and later articulated in the Lantos-Hyde United States Government Tuberculosis Strategy (finalized after initiation of the TB TO 2015 project).

USAID's TB program is part of the US Government (USG) foreign assistance program and contributes to the USG goal of "Helping to build and sustain democratic, well-governed states that will respond to the needs of their people and conduct themselves responsibly in the international system." Tuberculosis activities fall under the USG Foreign Assistance Framework, Objective Three—Investing in People, Program Area 1—Health, Element 1.2—Tuberculosis.

To accomplish the stated objective, TB TO 2015 works on two principal tasks:

Principal Tasks:

1. Technical Assistance: Provide short-and long-term technical assistance to USAID Missions and Regional Platforms in implementing and scaling up priority interventions in accordance with the Stop TB Strategy and the Global MDR-TB and XDR-TB Response Plan. Activity areas: short-term technical assistance and long-term technical assistance.

2. Global Technical Leadership: Support Bureau for Global Health core programs and further USAID global technical leadership in TB control by implementing catalytic activities and approaches to scaling up the Stop TB Strategy; the activities set forth in the Global MDR-TB and XDR-TB Response Plan, and the provision of technical assistance to assist countries to prepare proposals to the Global Fund to Fight AIDS, TB and Malaria (Global Fund). Activity areas: advocacy, communication, and social mobilization (ACSM); MDR-TB and XDR-TB; accelerate the introduction of new tools; and Global Fund technical assistance.

A detailed explanation of USAID's expectations regarding achievements under the Project Objective and each of the tasks can be found in Appendix A, Contract Number: GHN-I-00-09-00006, Order Number 1. Appendix B is the Monitoring and Evaluation Plan. These two documents should serve as important background and reference documents for the evaluation.

VI. SCOPE OF WORK (SOW)

1. Performance Evaluation of TB TO 2015:

The evaluation should assess whether TB TO 2015 implementers, PATH, and its partners, are successfully achieving the Project Objective. The evaluation should also identify and describe the key factors leading to the successes and shortcomings of the program. Based on these factors, the evaluation should provide concrete recommendations to TB TO 2015 and the USAID project management team that will inform future project implementation. Special attention should be paid to ACSM activities.

Key questions to be answered are:

1. To what extent is TB TO 2015 on track to meet the expected results under each principal task:
    a. Task 1: Technical assistance (see the Monitoring and Evaluation Plan for descriptions of indicators and targets).
    b. Task 2: Global technical leadership (see the Monitoring and Evaluation Plan for descriptions of indicators and targets).
2. By implementing activities under these task areas, to what extent has TB TO 2015 been effective in achieving the Project Objective: "Support the implementation and scale-up of the Stop TB Strategy and the Global MDR-TB and XDR-TB Response Plan 2007–08 to increase detection and successful treatment of TB and to achieve reductions in TB prevalence and deaths in USAID priority countries"? Please consider that the objective is flexible regarding MDR- and XDR-TB activities to allow activities relevant to global recommendations and strategies developed subsequent to the 2007–08 Response Plan initially referenced. Evidence of achievement of the Project Objective would include, but is not limited to:
    a. Increased detection rates
    b. Increased treatment success rates
    c. Reduction in TB prevalence
    d. Reduction in deaths due to TB.
3. What are the key factors contributing to the successes of the project?
4. What are the key factors contributing to the shortcomings of the project?

5. What steps should USAID and TB TO 2015 take to address these factors in the last year of the project? What steps should USAID take to address similar factors in future projects? Please identify both immediate and long-term steps.

2. Future Directions:

GH/HIDN intends to build on the lessons learned during the implementation of TB TO 2015 for future TB projects and activities. The findings of the evaluation will help to inform the future direction of USAID's TB program.

Key questions to be answered are:

1. Are there activities under TB TO 2015 that are not contributing as expected to the achievement of the Project Objective? How could these activities be adjusted to have more impact?
2. What activities, not included in TB TO 2015, should be added to future projects in order to achieve the Project Objective?
3. Is the Project Objective relevant to achieve the goals of the USAID TB program? If not, how should it be revised?

3. Methodology:

The mid-term program evaluation will commence with a one-day Planning Meeting (PM) in Washington, DC. This meeting will allow the evaluator to meet with USAID staff to be briefed on the TB TO 2015 contract and the activities of TB TO 2015. It will also allow USAID to present the team with the purpose, expectations, and timeline of the assignment. It is expected that after the PM the evaluator will:

- clarify roles and responsibilities for the evaluator, GH Tech Bridge IV, USAID/GH/HIDN, and TB TO 2015;
- review and finalize the evaluation questions;
- review and finalize the assignment timeline;
- develop data collection methods, instruments, tools, guidelines and analysis;
- review and clarify any logistical and administrative procedures for the assignment;
- establish a working relationship with GH Tech Bridge; and
- develop a draft outline of the evaluation report.

For this evaluation, the sources of information on the performance of TB TO 2015 include interviews with key stakeholders; copies of annual workplans and annual reports and semi-annual reports; and products and documents produced by TB TO 2015 (most documents will be provided electronically). These data sources detail the activities of the project and describe issues complicating implementation and their resolution. Additional information can be acquired by the evaluator through interviews with TB TO 2015 staff, USAID/Washington staff, USAID/Mission staff, other USAID cooperating agencies, TB TO 2015 partners, National TB Programs, and other in-country stakeholders. Suggested relevant documents and interviewees are identified below.

1. *Self-assessment discussion*: USAID will request that PATH conduct an informal self-assessment of TB TO 2015, based largely on the questions in Part 1 of the Statement of Work section

above, and be prepared to share their findings during an in-person interview with the evaluator.

2. *Background documents and other materials*: The following documents will be provided to the evaluator; other documents may be added or requested as needed:
   - TB Task Order 1 RFA
   - PATH Technical Application in response to the RFA
   - Contract
   - Annual Workplans
     - Core, years 1–4
     - Tanzania
     - DRC
     - India
     - Mexico
     - Ukraine
     - RDMA
     - Vietnam
   - ACSM in Eastern Europe (EE) and Central Asian Republics
   - TB/HIV in EE and Central Asia
   - Monitoring and Evaluation Plan
   - Branding Plan
   - Semi-Annual Reports, years 1–4
   - RDMA Final Options reports
   - USAID/India PATH project evaluation
   - Workshop reports
   - Trip reports
   - Staff organograms/contact lists
   - List of all products (training curricula, websites, documents, etc.) produced by TB TO 2015 and web-links to the products. Electronic copies will be provided if web-links are unavailable.
   - List of suggested key informants/interviewees (ranked according to recommended priority)

Interviews:

The evaluator will interview the USAID TB TO 2015 Management Team (COR and TA); former members of the management team; other USAID staff, including Mission and Bureau field staff; and TB TO 2015-related staff at PATH and at partner organizations, headquarters, and field levels. The evaluator is also expected to interview or correspond with other stakeholders related to TB TO 2015, such as cooperating agencies that are working with TB TO 2015, organizations receiving training or other capacity building from TB TO 2015, target organizations benefitting from TB TO 2015 activities, donors, and other parties chosen by the evaluator (in collaboration with USAID).

In most cases it is expected that interviews will be conducted in person, by telephone, by Skype, or via videoconference. Other information may be gathered through e-mail exchange. Interviews will be conducted over a three week span in Washington, DC, and Tanzania.

A list of suggested interviewees (key informants) will be provided by TB TO 2015 partners and USAID. The highest priority informants will be identified by USAID and PATH. The evaluator will draft a key informant interview questionnaire and will share it with USAID/GH/HIDN prior to the planning meeting. The evaluator will be provided with contact information, and USAID staff will send an e-mail of introduction to interviewees (copying evaluator). Scheduling will be done by evaluator.

VII. TEAM COMPOSITION, SKILLS, AND LEVEL OF EFFORT (LOE)

One or two external consultants will be identified and recruited through the GH Tech mechanism to serve as the evaluator(s). USAID/Washington will provide final concurrence with all proposed consultants.

The evaluator(s) should have expertise in the following areas:

- At least 10 years of experience in TB programming, particularly in low-resource settings.
- An advanced degree or commensurate experience in the social sciences, public health, or a related field.
- Previous experience in program evaluation. Experience in evaluating USAID-funded programs is desirable but not necessary.

The evaluator(s) must be able to quickly learn about the USAID-supported PATH TB project, work closely with USAID staff, evaluate and synthesize information quickly, make clear and well-founded recommendations, and produce clear and useful written reports and oral debriefings.

Level of Effort

Once the consultant(s) are identified and recruited, the process for document review and interviews with key informants can begin as soon as possible. Ideally, the evaluation will be conducted between October and December 2013. USAID will not be providing office space or equipment for the evaluator.

An illustrative distribution of level of effort (LOE) is seen below for the lead evaluator. A final timeline with distribution of LOE will be developed after consultation with the team at the Team planning meeting.

Contractor Task	Total Person-Days
Document review	5
Travel to/from DC and to/from Tanzania	7
Meeting with USAID and GH Tech to discuss SOW, clarify roles and responsibilities, identify key stakeholders for interviews, review workplan, and review report outline.	1
Draft and finalize assessment methodology. Develop interview instruments. Finalize workplan. Set up all state-side meetings and plan site visit.	2
Conduct in-person, phone, or e-mail interviews with TB TO 2015 staff, partner organizations, USAID, and other stakeholders, in DC and Ukraine.	12

Analyze information, prepare first draft of report, review with USAID.	4
Prepare and deliver presentations for USAID and PATH.	2
Make revisions and draft final reports.	3
Total	36

Deliverable	Approximate day due
Draft workplan	3 days prior to the planning meeting
Final workplan	1 day after planning meeting
Outline of report structure	Before writing begins
Draft report	7 weeks after project start
Presentation/debrief	7 weeks after project start
Final report	10 weeks after project start

Logistics

GH Tech will be responsible for all international travel and consultant logistics.

Deliverables and Products

The team will prepare the deliverables listed below; all deliverables will require final approval by USAID/Washington. Before beginning work, the evaluator will review the checklist by which the report will be assessed. This is attached as Appendix C, "Checklist for Assessing USAID Evaluation Reports," and is also available online at http://transition.usaid.gov/policy/evalweb/evaluation_resources.html.

1. **Evaluation Workplan**, including Data Collection/Analysis Plan: The evaluator will provide the COR with a workplan for approval by USAID, including a data collection and analysis plan and a key informant interview questionnaire. The general methodology to be used will be reviewed and discussed at the planning meeting. The evaluators will then be responsible for finalizing the overall workplan, developing a schedule for specific activities, and addressing other operational and logistical issues as needed. The data collection plan and questionnaire created will ensure that information collected by the evaluator during all interviews and the country visit is comparable and consistent. These materials should be sent to USAID prior to the planning meeting.

2. Draft and Final Assessment Report:

   - Outline: The evaluator will provide the COR with a preliminary outline of the report structure before writing begins (electronic version only).
   - Draft Report: Analyzing data collected from document review and interviews, the evaluator will provide the COR with a draft report that includes all the components of the final report (electronic version only). USAID will provide comments on the draft report to the team within three working days.
   - Final Report: The evaluators are required to submit a final internal report (in English) to the COR (two hard copies and two electronic copies – one pdf and one unprotected Word document).

The final report should include, at minimum, the following: executive summary; scope and methodology used; important findings (empirical facts collected by evaluator); conclusions on key assessment questions (evaluator interpretations and judgments based on the findings); recommendations for the future of TB TO 2015 (proposed actions for management based on the conclusions); and lessons learned (implications for future TB projects and activities and for others to incorporate into similar programs). The report should be no longer than 20 pages, excluding annexes. Per USAID Evaluation Policy, this SOW should also be attached as an annex to the final report.

3. **Debriefings:** The evaluator will provide two debriefings, one to USAID and one to PATH in Washington, DC.

VIII. RELATIONSHIPS AND RESPONSIBILITIES

GH Tech will coordinate and manage the evaluation team and will undertake the following specific responsibilities throughout the assignment:

- Recruit and hire the evaluation team.
- Make logistical arrangements for the consultants, including travel and transportation, country travel clearance, lodging, and communications.
- Facilitate the editing and formatting for the final reports, but not provide a 508-compliant document or upload to the DEC for public accessibility.

USAID will provide overall technical leadership and direction for the evaluation team throughout the assignment and will provide assistance with the following tasks:

Before Assignment:

- *SOW.* Respond to queries about the SOW and/or the assignment at large.
- *Consultant Conflict of Interest (COI).* To avoid conflicts of interest or the appearance of a COI, review previous employers listed on the CVs for proposed consultants and provide additional information regarding potential COI with the project contractors evaluated/assessed and information regarding their affiliates.
- *Documents*. Identify and prioritize background materials for the consultants and provide them to GH Tech, preferably in electronic form, at least one week prior to the inception of the assignment.

During Assignment:

- *Mission Point of Contact*. Throughout the evaluation, ensure constant availability of the Point of Contact person and provide technical leadership and direction for the team's work.
- *Meeting Space*. Provide guidance on the team's selection of a meeting space for interviews and/or focus group discussions (i.e., USAID space if available, or other known office/hotel meeting space).
- *Meeting Arrangements*. Assist the team in arranging and coordinating meetings with stakeholders.
- *Facilitate Contact with Implementing Partners.* Introduce the evaluation team to implementing partners and other stakeholders, and where applicable and appropriate prepare and send out an introduction letter for team's arrival and/or anticipated meetings.

After Assignment:

- *Timely Reviews*. Provide timely review of draft and final reports and approval of deliverables.

Mission Contact Persons

Elizabeth Pleuss
COR TB TO 2015
USAID/Washington
epleuss@usaid.gov

YaDiul Mukadi
ymukadi@usaid.gov

COST ESTIMATE

GH Tech will provide a cost estimate for this activity.

ANNEX II. EVALUATION METHODS AND LIMITATIONS

The activities of PATH supported by USAID under TO TB 2015 correspond to the key components of the USAID strategy, and the intermediate (operational) results can be measured. However, the impact of those activities on TB prevalence and mortality cannot be measured in the limited scope and duration of a project and can only be estimated at the global level. The goals of reduction of prevalence and deaths to half from 1990 to 2015 are based on epidemiological models and not on collected data for most countries and globally. In addition, the use of the Stop TB instead of the DOTS strategy as the basis for the USAID project reduces the priority of impact on transmission: most interventions aim to increase the capacity and quality of TB care, with better clinical outcomes and reduced human suffering and patient deaths. Examples are noted in Table A.11.1.

Table A.II.1. Suggested Activity Indicators

Component	Indicators	Comments
Accelerate case detection	Case detection rate (CDR)	Smear-positive incidence estimates and CDR have been abandoned by WHO; CDR was not applicable to small populations and the denominator was an educated guess; CDR for all forms does not reflect transmission. The most efficient indicators are the number (rate) of suspects examined by microscopy (or by bacteriology), smear-positive cases detected (or bacteriologically confirmed), and TB cases reported. New diagnostic tools (molecular methods) improve the diagnostic quality but do not prioritize the main sources of infection for epidemiological impact
Accelerate (improve) treatment	Treatment success	Population: new smear-positive TB (in the future new confirmed, non-MDR-TB cases) Target: >85%, valid and measurable at all levels High impact of involvement of community (ACSM), private providers, TB drug management and organization of directly observed treatment (DOT) Low impact of new drugs on duration of treatment, except for MDR cases, as drugs do not act on quiescent bacilli
Scale up PMDT	Number of MDR detected / treated	Mainly quality of care (diagnosis and treatment), not prevention which requires improving initial treatment. Large impact of molecular methods and possibly new drugs Needs extensive human capacity building
Address TB/HIV co-infection	Number (%) of patients tested, number treated with ARVs/ IPT	Measurable operational indicators, the impact on TB transmission is difficult to evaluate Large impact on deaths during TB treatment and IPT prevents breakdown to TB disease in HIV and TB infected
Strengthen health system and human resource capacity	ACSM, training activities and materials; lab. equipment, M&E tools, guidelines,	Measurable administrative indicators (activities) Measurable operational indicators (products) The increase in capacity does not imply systematic use of the experiences by the program or impact; requires assessments

Component	Indicators	Comments
Develop, test, and introduce new tools and approaches	Diagnostics, protocols, norms	Measurable administrative indicators (activities) Measurable operational indicators (quality of diagnosis, referral of suspects, treatment outcomes)

The main sources of infection are adults with pulmonary TB and persistent cough, which can be diagnosed by direct sputum-smear microscopy. These cases are 4–5 times more infectious than other pulmonary TB and responsible for over 90% of TB transmission (both susceptible and drug-resistant). Screening to identify and treat them was recommended by WHO since 1974[3], it was the main component of the DOTS strategy, and is still valid today (systematic screening for active tuberculosis: rationale, definitions, and key considerations[4]

Although the improvement of quality of care (diagnosis, treatment, and management of TB/HIV and MDR-TB) reduces suffering, increases cure, and reduces deaths during treatment, the impact on transmission and prevalence will be limited unless accompanied by identification and cure of the main sources of infection, through screening of adults with cough and sputum microscopy.

Many persons with symptoms do not recognize them, do not consult spontaneously, or are not screened by sputum microscopy when attending public or private health providers. A practical and easy monitoring indicator of the efficacy of TB case detection is the number of symptomatic persons ("TB suspects") examined by sputum microscopy and the proportion of those who are smear-positive, available in every country from laboratory records. A less sensitive indicator is the number of smear-positive patients diagnosed by the program, and one even less pertinent to transmission but still useful is the total number of cases (reported incidence). All these data are currently collected and even reported, but are rarely analyzed and used for action.

Box 2. Indicator Classification

For the purposes of the present report, the indicators used have been classified as:

- *Administrative*: Performance of planned activities, capacity development, implementation of community and private provider projects,
- *Operational*: Products (e.g., implementation of new laboratory methods, development of tools and guidelines), expansion of coverage, quality of care (e.g., proportion of cases confirmed by smears or other laboratory procedures, external quality assurance [EQA] of microscopy, number of cases referred by NGOs, CBOs, or private practitionerss , success rates, proportion of TB cases tested for HIV and for drug resistance,)
- Operational impact: Number of smear-positive TB cases detected and treated, total cases reported, number of TB/HIV patients diagnosed and treated with ARV or CPT, number indicated IPT, number of MDR-TB patients identified and treated

Depending on the type of intervention, the categories are not exclusive and overlap.

[3] WHO Expert Committee on TB, 9th report, 1974.
[4] K. Lönnroth et al., International Journal of Tuberculosis and Lung Disease, 17 (3): 289–98.

At the time of this evaluation, WHO has announced adoption of new TB definitions and procedures for M&E that may have substantial impact on design of future projects. The main implications are included in table below.

Table A.II.2. Implications of New WHO Definitions and Procedures

Changes	Implication
Total TB cases. Includes cases not yet treated ("early defaulters")	Requires use of the laboratory and other records to ensure completeness of reporting, improves coverage
Bacteriologically confirmed TB case	By smear, culture, or rapid tests. Does not separate smear-positive cases, the main sources of infection
Case detection rate. Abandoned, no estimates for smear-positive or total incidence. WHO recommends not establishing targets for detection.	Need to agree on practical indicators for program and project monitoring, using available data, such as the number of persons screened by microscopy and by other laboratory methods. The number of total patients reported depends on the quality of clinical diagnosis. The number of confirmed cases should increase with better diagnosis but decrease with program impact and reduction of TB prevalence: it is not possible to know if changes are epidemiological or programmatic.
Cured. Pulmonary patient initially confirmed and sputum smear or culture negative in the last month and one previous occasion	Includes smear-negative cases confirmed by other methods (less infectious), classified as cured on the basis of microscopy
Lost to follow-up (= "defaulter")	
Not evaluated (includes transferred)	
MDR patients are not included in the cohort of new patients.	The cohort is of presumable non-MDR patients, and a separate analysis should be done for MDR-TB treated with second-line drugs. Data will not be comparable with previous years. Outcomes will depend on the coverage of MDR diagnosis and treatment; and cases may be excluded from both groups if coordination is not perfect.

Data Collection Instruments

Questionnaires

USAID Staff

1. Name, position
2. Which are the priorities for USAID TA in TB (in order of importance)? Why?
    a. Increase the national capacity (training, lab equipment, community involvement)
    b. Improve quality of care (diagnosis, treatment, TB/HIV, PMDT, public-private mix [PPM])
    c. Reduce TB transmission, morbidity, and mortality (screening sources of infection, infection control)
3. How are the TA delivery agencies selected and the scope of work and countries defined?
4. Does the SOW reflect the above priorities and order of importance?
5. How are the results measured (indicators, methodology)

6. For PATH B4-020 TB TO 2015, what were the main objectives of technical assistance?
7. What is your perception of PATH delivery? Of outcomes? Of impact?
8. What is your perception of ACSM regarding impact on the TB burden?
9. What is the priority of transferring activities to the national TB programs for expansion?

PATH Staff

1. Name, position
2. Which are the PATH TA priorities in TB in the current project (in order of importance)?
    a. Increase national capacity (training, lab equipment, community involvement)
    b. Improve quality of care (diagnosis, treatment, TB HIV, PMDT, PPM)
    c. Reduce TB transmission, morbidity, and mortality (screening sources of infection, IC)
3. Have those priorities changed in time from 2009 to date? How?
4. How are the results measured (indicators, methodology)
5. Which have been the main achievements (global, inter-country, country)?
6. Was the TA well-accepted by the countries and regions?
7. Did the NTPs participate? Co-opt areas of activity? Examples?
8. Did other international partners participate? Was their strategy or priorities different?
9. Are the outcomes of the project satisfactory? On track?
10. Which should be the key priorities for the last year? For future projects?

National Program (NTP) Staff

1. Name, position
2. What is the role of USAID/PATH TA to TB? Is it useful? How?
3. Are the plans discussed with the NTP at different levels? How?
4. How are the results measured? What are the main indicators?
5. Has the TA made an impact in NTP on NGO capacity? How?
6. Has the NTP benefited by the experience of PATH-supported areas to revise technical or operational guidelines and adopted indicators for case detection and ACSM?
7. What are the unmet NTP priorities for future support?

Other National and International Partners

1. Name, position
2. How do you see PATH support to TB control in global, inter-country, and country activities?
3. Is your organization collaborating directly with PATH? How?

4. Which do you see as priorities for USAID country support to TB?
5. Which do you see as PATH strengths and weaknesses?
6. How would you modify USAID technical assistance to be more effective in improving TB quality of care? In reducing the TB burden?
7. How would you modify WHO and STBP technical guidelines and assistance to be more effective in improving TB quality of care? In reducing the TB burden?

ANNEX III. SOURCES OF INFORMATION

MAIN DOCUMENTS CONSULTED

Scope	Document
Global plans	• TB Task Order 2015 Project Performance Evaluation. Contract with Global Health Technical Assistance Bridge IV Project (GH Tech), 2013. Annex A: Scope of Work. • Contract GHN-I-00-09-00006 with PATH, to increase detection and successful treatment of TB and to achieve reductions in TB prevalence and deaths in USAID priority countries • USAID Contract Number: GHN-I-00-09-00006, Order Number 1. Monitoring and Evaluation Plan • PATH TB TO 2015 Monitoring and Evaluation Matrix • TB 2015 ME Plan - Revised January 19, 2010 • TB TO 2015 Core Work Plan Final, December 17, 2009 • PATH TB IQC, TB Task Order 2015 GHN-I-00-09-00006 Draft New Tools Work Plan, FY2009 • TB IQC Task Order 1. GHN-I-00-09-00006. Core Work Plan. FY09/FY10 Carryover and FY11 Combined • TB 2015 Core work Plan FY11 FINAL 9.9.2011 • PATH TB IQC Task Order 1 GHN-I-00-09-00006 FY12 Core Work Plan • PATH TB IQC Task Order 1 GHN-I-00-09-00006 FY12 Carryover and FY13 Core Work Plan • PATH Core Work Plan, September 27, 2013
Global reports	• PATH TO 2015 Semi-annual Report, April 30, 2010 • PATH Annual Report, October 1, 2009, through September 30, 2010 • PATH TO 2015 FY09 Annual Report, November 1, 2010 • PATH TO 2015 Semi-annual Report, April 29, 2011 • PATH Annual Report, October 2011 • PATH Annual Report, October 1, 2010–September 30, 2011 • PATH TO 2015 Semi-annual Report, October 1, 2011–April 30, 2012 • TB TO 2015 Summary Report, October 1,2012–March 3, 2013 • TB TO 2015 Core Annual Report Yr 3, October 1, 2011–September 30, 2012 • TB TO 2015 Summary of Achievements Report, October 30, 2012 • Annual Report Core. October 1, 2012–September 30, 2013 • TB TO 2015 Summary Report, October 1, 2012–September 30, 2013

Scope	Document
Global reports	• Workshop on Advocacy, Communication and Social Mobilization for TB Control in the Western Pacific. March 24–30, 2012, Manila, Philippines • Workshop on Monitoring and Evaluation of Advocacy, Communication & Social Mobilization (ACSM) to Support TB Control, June 11–16, 2012, Sondalo, Italy. • Advocacy, Communication, and Social Mobilization (ACSM) Workshops for Zambia Civil Society Organizations (CSOs), the National Tuberculosis and Leprosy Control Program (NTLP), and Joint Planning. August 17–September 1, 2012. • Workshop on Advocacy Strategy Development for Africa Coalition on TB (ACT!). Nairobi, Kenya, December 11–15, 2012 • Civil Society Orientation Advocacy, Communication and Social Mobilization Workshop. Africa Coalition on TB Meeting , NTLCP and ACT!, Abuja, Nigeria, June 26-July 6, 2013 • Intensive Training on Advocacy, Communication and Social Mobilization for Tuberculosis Control. Workshop, March 12–23, 2012, Washington DC, USA • Report on outcomes of Africa and Asia the Regional ACSM Skills-building Workshops • Publications produced by PATH under TB TO 2015 • Africa Coalition on TB (ACT!) Planning Retreat, Tirano, Italy, June 3–982012
Bangladesh	• Semi-annual Report, April 3, 2013–September 30, 2013
Democratic Republic of Congo	• Scope of Work. Tuberculosis Task Order 2015 FY2010, June 16, 2010 • Annual Report, October 1, 2011–September 30, 2012 • Semi-annual Report, October 1, 2012–March 31, 2013 • Annual Report, October 1, 2012–September 30, 2013
Eastern Europe	• Regional and Country Recommendations for Enhancing Implementation of the Three I's and Summary of Technical Assistance in Eastern Europe and Central Asia • Annual Report (ACSM), October 1, 2011–September 30, 2012 • Annual Report (TB/HIV), October 1, 2011–September 30, 2012
India	• India Scope of Work 2010; Revision September 11, 2009 • Annual Report, October 1, 2011–September 30, 2012 • Annual Report, October 1, 2012–September 30, 2013
Mexico	• Advocacy, Communication & Social Mobilization: Gap Analysis and Planning to Support TB Control in Mexico. Workshop Report, August 2011, Mexico DF • Mexico Annual Report, October 1, 2011–September 30, 2012
Tanzania	• Tanzania Scope of Work FY10, Final June 16, 2010 • Tanzania PATH FY13 Scope of Work, October 3, 2013 • Kirasawe article (final draft) • Tanzania Annual Report, October 1, 2011–September 30, 2012 • Tanzania Semi-annual Report, October 1, 2012–March 31, 2013 • Tanzania Annual Report, October 1, 2012–September 30, 2013

Scope	Document
Ukraine	• Ukraine TO 2015 Scope of Work, Final November 1, 2010 • Ukraine Annual Report, October 1, 2011–September 30, 2012
Vietnam	• Vietnam Annual Report, October 1, 2011–September 30, 2012 • Vietnam Annual Report, October 1, 2012–September 30, 2013
RDMA	• Annual Report, October 1, 2011-September 30, 2012
Other	• WHO Global TB Report 2010 • WHO Global TB Report 2013 • TB India 2012. RNTCP, Government of India, March 2012 • TB India 2013. RNTCP, Government of India, 18 March 2013

PERSONS INTERVIEWED

Organization	Name	Position	Method
USAID HQ	Elizabeth Pleuss	COR TB TO 2015	In person
	Charlotte Colvin	TB TO 2015 Team, former PATH	In person
	Amy Piatek	Senior TB Technical Advisor	In person
	Mukadi YaDiul	USAID Technical Advisor	Skype
	Meghan Holohan	USAID Program Assistant TO 2015	In person
USAID FIELD	Dorcas Muteteke	USAID TO Activity Manager, DRC	Skype
	Elisa Adelman	Health Officer (TB/HIV), CAR	Skype
	Patrick R. Swai	Clinical Unit Lead, USAID Tanzania	In person
	Ezra B. Mwijarubi	Project Manager Spec., USAID Tanzania	In person
PATH WDC/ SEATTLE	Svitlana Okromeshko	PATH ACSM Program Officer	In person
	Bindiya Patel	PATH (Seattle)	Skype
	Tope Adepoyibi	PATH Washington, DC	In person
	Holly Greb	PATH Washington, DC	In person
	Stefania Slabyj	Manager TB team, Washington, DC	In person
	Lal Sadasivan	Technical Director, TB TO 2015	In person
	Daddy Makanka	Washington DC	In person
	Fozo Alombah	Technical Officer, Washington, DC	In person
	Lisa Mueller	Technical Officer, Washington, DC	Meet. M&E
	Antonio Martinez	PATH consultant, Mexico	Skype
	D'Arcy Richardson	Former Director, PATH	Skype
PATH FIELD	Zahra Mkomwa	Director, TB/HIV project, Tanzania	In person
	Vishnu Mahamba	Deputy Director, Tanzania	In person
	Baraka Mwago	ACSM Coordinator, Tanzania	In person
	Jackson Mugyabusu	Technical Officer, Tanzania	In person
	Amri M. Kingalu	Technologist, Central TB Lab, Tanzania	In person
	Bao Vu	Program Director for TB, Vietnam	Skype
	Emmanuel Kiangala	Director, DRC	Skype

Organization	Name	Position	Method
	Julian Mpwata	District TB/HIV Coordinator, Tanzania	In person
	Raveendra Reddy	Director TB BAN, Dep. Dir. TB, India	Skype
Project HOPE	Jamilla Ismoilova	ACSM Regional Specialist, CAR	Skype
MSH	Suleiman Kimatta	Country Representative, Tanzania	In person
	Pedro G. Suarez	Global TB Technical Lead	In person
FIND	Charles Kagoma	Sr. Technical Advisor, Lab. Services, Tanzania	Skype
	B. Vollepore	Former Management Officer, FIND	
Dartmouth College	Lisa Adams	Asst. Dean for Global Health; Director, Center for Health Equality	Skype
UCSF	Elizabeth A. Talbot	Assistant Professor, Infectious Diseases	
WHO	Tahuid Islam	WHO WPR focal point for MDR-TB	Skype
ACT!	Carol Nawina	President, African Coalition on TB	Skype
Initiatives, Inc.	Joyce Lyons	President	Skype
	Rebecca Furst	Senior Technical Adviser, Human Resources in Health	Skype
Tanzania	Romilus Kahuiih	Ag. Regional Medical Officer, Pwani	In person
	Nelson Williain	Regional TB/Leprosy Coordinator, Pwani	In person
	Anwar Milulu	Medical Officer 1/c, Mkuranga District	In person
	Deus V. Kamara	National TB/Leprosy Program Manager	In person
	Saidi Mfaume	Central TB Laboratory, Nat. Inst. of Medical Research, Muhimbili Nat. Hosp.	In person
	Mohammed Makame	Country Program Leader, PATH	In person

FIELD OBSERVATION IN TANZANIA

Place	Organization	Persons
Pwani Region	Regional Health Office, Kibana town	Romilus Kahwil, Regional Medical Officer Nelson Willain, for Regional TB/Leprosy Coordinator
	Kisarawe District Hospital	Observation of microscopy and TB patient registers Mwanahamisi Omari, Medical Officer Kisarawe
	PATH	Andrea Katanga, Zonal TB/HIV Coordinator Viocena A. Mlaki, District TB/HIV Coordinator, Ilala Justice Everest, District TB/HIV Coordinator, Kisarawe
	Mkuki CBO	Ex-TB patients, HIV+ and other volunteers Sputum slide fixers
Mkuranga District	Mkuranga Hospital	Dr Anwar Milulu, District Medical Officer in charge; Juliana Mpwata, District TB/HIV Coordinator (PATH); Observation of microscopy and TB patient registers
	St. Vincent Health Center (Faith based)	Sister Kalisex Hambu, Clinician Maria Beatus, DOT Nurse Observation of microscopy and TB patient registers
	Msimbu Village	Private drug dispenser
Dar es Salaam	National TB and Leprosy Program (NTLP)	Deus V. Kamara, NTLP Program Manager Verus Mboneko, Program Officer, MDR Coordinator
	Central TB Laboratory	Saidi Mfaume, Laboratorist in charge
	USAID Tanzania	Patrick R. Swai, Clinical Unit Lead Ezra B. Mwijarubi, Project Manager, Specialist, Infectious Diseases
	PATH Tanzania	Mohammed H. Makame, Country Program Leader Zahra Mkomwa, Director, TB/HIV project Vishnu Matungwa, Deputy Director Mugyabusu Jackson, Technical Officer

ANNEX IV. SUMMARY OF PATH TB TO 2015 ACTIVITIES

SELECTED EXAMPLES OF ACTIVITIES AND INDICATORS REPORTED

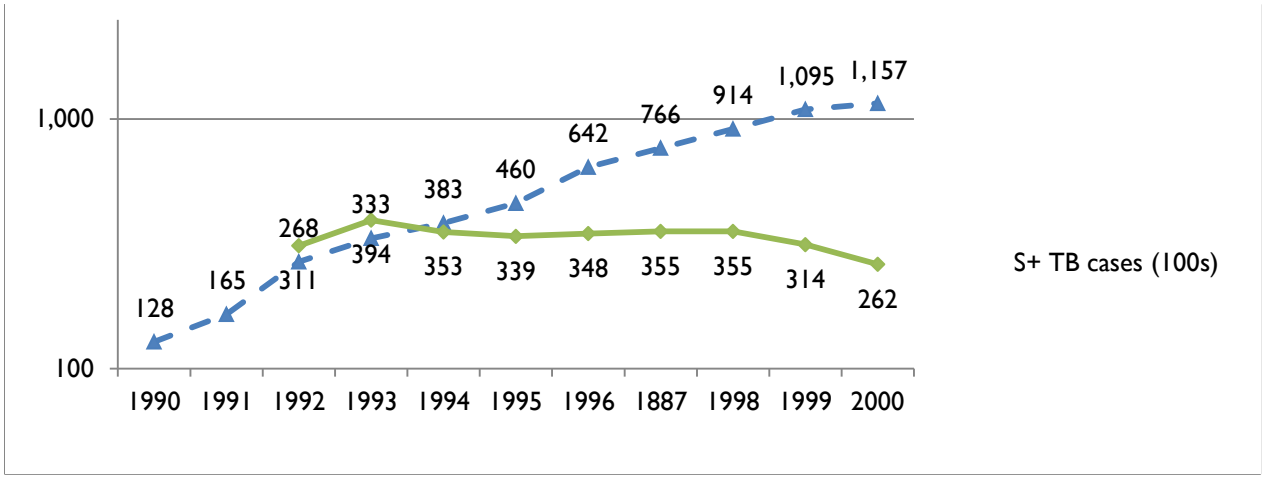
Global, Regional and Inter-country Projects		
Partners	**Activities**	**Indicators**
WHO, GLC, Stop TB Partnership, TB TEAM, Asia Regional Development Mission (RDMA)	Year 1. 2009–10. ACSM development of curriculum (two regional workshops, in Tanzania for Africa and in Sri Lanka for Asia), Training of Trainers, participation in Stop TB Partnership working groups. Evaluated ACSM interventions on knowledge, case detection, and treatment outcomes in Tanzania (study on patients in Kisarawe). Technical assistance for MDR-TB to high-burden countries (HBC). Agreement with Green Light Committee (GLC) for DRC. Harmonized PATH tools with WHO, tested them in training in Peru and India for follow up in DRC, Zimbabwe, and Asia. Training in infection prevention and control (IPC). Introduction of new tools (line probe assays and LED checklist). Supported applications to the GFATM from Zimbabwe, Tanzania, and Zanzibar. Year 2. 2010–11. Global training and planning for ACSM in South Africa and Ethiopia. Co-branding of MDR-TB toolkit. Supported GF applications. Planned Regional Model Center for MDR-TB (Bangladesh, Burma, Cambodia, China, India, Indonesia, Philippines, Thailand, and Vietnam). Year 3. 2011–12. Training on ACSM in Africa (launched TB coalition, ACT!, in Zambia); training on ACSM in EE; expanded use and revision of MDR toolkit; IPC training and assessment of practices in Mexico; new tools: research protocol for TB/diabetes (TB/DM) in Mexico; support to GFATM R11/TFM (transitional funding mechanism) with MSH (succeeded for Tanzania); published MDR planning toolkit version #3; TA on MDR-TB in Ukraine and Vietnam; TA on IPC, clinical training, and assessment in Mexico. Yr 4. 2012–13. ACT! seems to be self-sustainable; M&E training and manuals finalized and endorsed by STBP; protocol for TB/DM finalized; support to countries. Baseline studies and evaluations in Tanzania, Vietnam, and DRC. Funding for EE and CAR (11 countries) including ACSM assessment, training package and TA for GFATM. **RDMA**: support to nine high-burden countries (Bangladesh, Burma, Cambodia, China, India, Indonesia, Philippines, Thailand, Vietnam). Assessment of MDR-TB and needs for technical assistance.	-Administrative -Operational: One impact study on patients in Kisarawe -Operational in Year 3: Development of (ACT!) guide on M&E for ACSM, toolkit, TB/DM protocol, -Impact in Year 3: increased detection in DRC.

Global, Regional and Inter-country Projects		
Partners	**Activities**	**Indicators**
India		
RNTCP, WHO	Year1. Laboratory strengthening (CRL, LPA in intermediate labs, lab assessment checklist); infection control (training architects); piloting public-private mix (PPM); MDR-TB control. Identified overlapping efforts, so focused on continuation of treatment. Year 2. Supported DOTS and DOTS-plus. Strengthened an Intermediate Reference Lab, upgraded 4 labs for MDR-TB in project areas (for 93 million population), tested ACSM interventions, engaged pharmacies and community, tested approaches to case detection and treatment, PMDT. Scaled up line probe assay (LPA), expanded MDR treatment access. Engaged pharmacies (referral of suspected cases, 60 pharmacies: 105 referred by 29 in 7 months, 6 cases diagnosed/treated). Transferred PPM projects in two districts to local government; strategy adopted by state (Andhra Pradesh). Assessed human resources for MDR. Year 3. Implementing additional laboratory upgrading. India reached full PMDT coverage in March 2013. Laboratory proficiency testing, laboratory accreditation.	-Administrative -Operational impact: pharmacy referral pilot results -Operational: expansion of DOTS plus
Tanzania		
Dartmouth Medical School, MSH, UCSF, TB & LEP programs, NTP, PEPFAR, GHCS (Global Health Child Survival), Initiatives Inc., APHFTA, MoH, WHO	Year I. With TB and LEP programs, Initiated cohort MDR treatment. Joined Tech Work groups, reviewed guidelines and reporting, IPC, pediatric guidelines, assessment practices CD and TR, training contact investigation pilot, TB TO 2015 for Zanzibar, zonal meeting., Operational guidelines for MDR – training; training ACSM, M&E analysis; initiated TB/HIV in 7 districts (out of 26). Year 2. Improved DOTS, public and private human resource capacity for TB/HIV, increase CD and outcomes, guidelines for TB and MDR-TB management in children; TA for lab and for the NTP M&E system. IC curriculum, guidelines, and training. Assessment and SOP for detection in health facilities (increase detection to 85% Arusha, 68% Meru). Guidelines PMDT. Training in contact investigation, monitoring of results. Year 4. Expansion of supported facilities to 1,083; increase detection for HIV and ART 60%, CPT; increase pediatric notification (from 7-8 to 10.6%); installation of two GeneXpert and detection of MDR-TB. Year 5: Will expand to 6 regions. HIV, IPC, management of children, laboratory, rollout of GeneXpert, PMDT, TB/diabetes, contact tracing, SOP.	- Administrative - Operational Yr2 (> reporting facilities TB/HIV; > tests HIV, counseling, CPT/ART, contact investigation) -Impact: > detection in 35 PATH regions
Bangladesh		
NTP, NGOs	Assessment of PPM and training tools for PPM. PPM committees at national, division, and district levels. Efforts to make TB a disease subject to notification.	- Administrative

Global, Regional and Inter-country Projects		
Partners	**Activities**	**Indicators**
DRC		
PNLT, MSH, Dartmouth College	Improved NTP management capacity, community engagement, local NGO training, TB/HIV plan, training in detection of MDR-TB, guidelines for transporting sputum. Year 4. Supported province/sub-province coordinating offices (ex-TB CAP), assessment and guidelines for pediatric care. Increased capacity for PMDT; trained and supported program staff; increased screening facilities for MDR-TB from 62 to 525 in 12 supported sites; number of specimens from 18 to 269, 18 patients started treatment; NGOs, increased cases (strategy copied by TB REACH). Integration of TB/HIV activities from 14 to 70 facilities: testing, counseling, CPT, ART. Assessed pediatric practices and developed training modules.	-Administrative -Operational: expansion network, increase capacity -Impact Yr3 and 4: increased capacity, detection, PMDT and TB/HIV
EE (Armenia, Azerbaijan, Belarus, Moldova, Georgia, Ukraine) and CAR		
USAID, STBP, Project HOPE (Turkmenistan)	ACSM assessment, skill building workshops, TA, country plans, support M&E of ACSM. Only TAJ has national ACSM strategy in CAR. Year 3. Is (intensified CF, IPT, IPC), TB/HIV capacity assessment, workshop in Kiev, Ukraine	-Administrative
Mexico		
NTP	PMDT, PPM and ACSM. Assessment of PMDT capacity, developed PMDT and ACSM capacity, action plans, PPM network (documented increase detection, MDR-TB). Year 4. TA to Mexico NTP to introduce PMDT, PPM, and ACSM. Support to evaluation of past decade of USAID support for TB control. 2012 was the last year of the TB TO 2015 project	-Administrative -Operational and impact for supported areas
Ukraine		
NTP, GFATM	Long history of PATH support to DOTS strategy, last strategy revised in 2012. Focus on ACSM, complementing GFATM with capacity building and TA. TA for TB/HIV. KAP protocol. Training ACSM for NGOs. Task force for ACSM. Low success with country problems due to MDR (failure, deaths), specialized/hospitalization policies, low diagnostic confirmation. The project has been reactivated for one year through 2014.	-Administrative
Vietnam		
NTP,	Expansion of PPM, TB/HIV work, monitored results in facilities, suspected cases referred by pharmacies and private providers, confirmation and HIV tested and treated. Training for further expansion. Networking. M&E operational and impact. Good stratified data for 23 districts (number of trained, suspected cases referred, diagnosed, smear-positive, % contribution). Year 4: Expanded PPM referral, transferred to Provincial Department of Health in Hai Phong (2012) and other three provinces (2013).	-Administrative -Operational/ impact for PPM referral and HIV expansion. -Transfer of strategy to local authorities

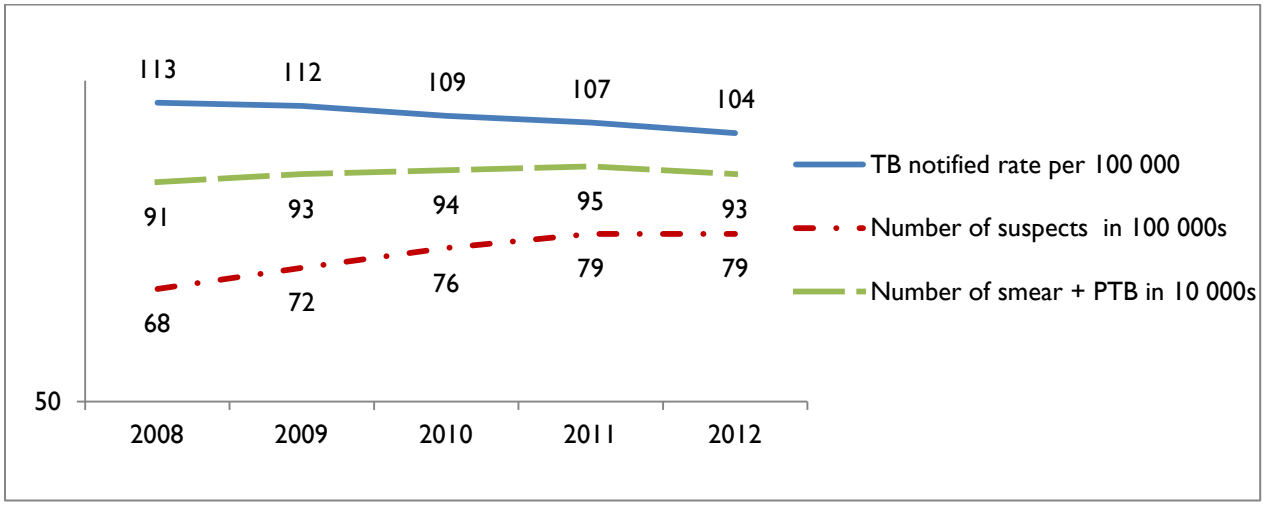
ANNEX V. GRAPHS AND TABLES

Figure A.V. 1. Suspected TB Cases Examined by Smear Microscopy (Thousands) and Smear-positive TB Cases Detected (Hundreds), Peru, 1990–2000



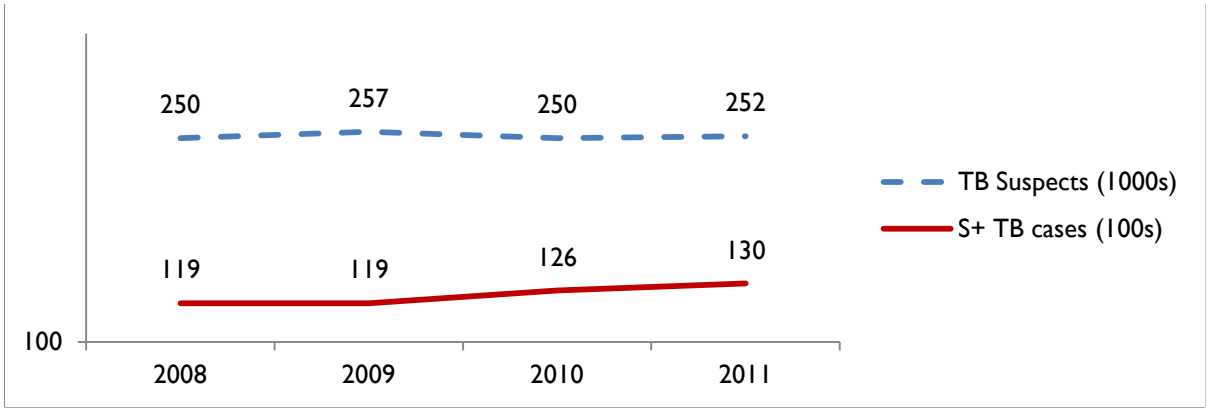
Source: National TB control Program, Peru

Figure A,V. 2. Suspected TB Cases Examined by Smear Microscopy (100,000s), Smear- Positive Cases Identified (10,000s), and Total TB Rate Notified, India, 2008–12



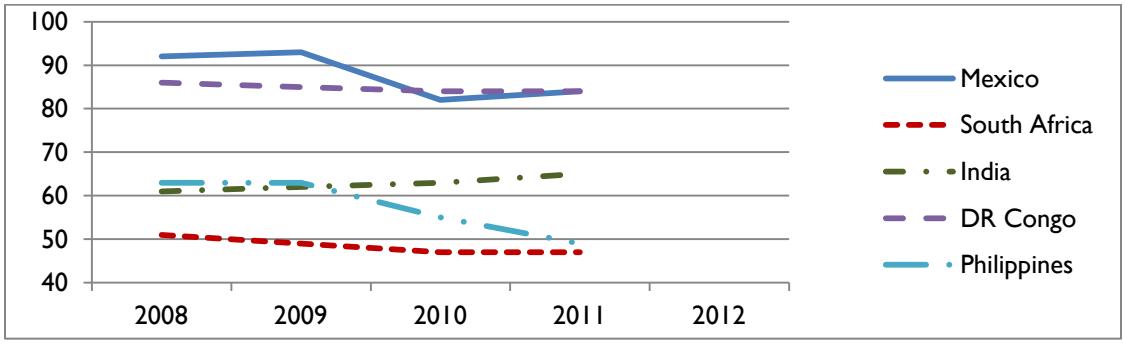
Source: TB India 2013, India RNTCP, Ministry of Health

Figure A.V.3. Suspected TB Cases Examined by Sputum Microscopy (Thousands) and Smear-Positive Cases Reported by the National Program (Hundreds), Mexico, 2008–11



Source: National TB control program, Mexico

Figure A.V.4. Proportion (%) of Reported New Pulmonary TB Confirmed by Smear Microscopy *



Source: WHO Global TB Report 2013

** Influenced by the improving quality of clinical diagnosis (India), high prevalence of HIV (South Africa, DRC) and active sputum microscopy screening among TB suspects (India)*

ANNEX VI. DISCLOSURE OF ANY CONFLICTS OF INTEREST

Disclosure of Conflict of Interest for USAID/GH Consultants

Name	Fabio Luelmo
Title	MD MPH
Organization	GH Tech Bridge 4
Consultancy Position	Consultant
Award Number *(contract or other instrument)*	Contract Number: AID-OAA-C-13-00113
USAID Project(s) Evaluated *(Include project name(s), implementer name(s) and award number(s), if applicable)*	GH Tech: B4-020 TB TO 2015 Performance Evaluation for USAID's TB Task Order 2015 Project. USAID tuberculosis program implemented by PATH, (2009 – present
I have real or potential conflicts of interest to disclose.	☐ Yes ■ No
If yes answered above, I disclose the following facts: *Real or potential conflicts of interest may include but are not limited to:* *1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated.* *2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation.* *3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project.* *4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated.* *5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated.* *6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.*	

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	
Date	8 October 2013

For more information, please visit
http://www.ghtechproject.com/resources

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