



Tuberculosis Coalition for Technical Assistance

Mid-Term Evaluation

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Acronyms and Abbreviations

AIDS	acquired immunodeficiency syndrome
ALA	American Lung Association
ATS	American Thoracic Society
BCC	behavior change communication
CDC	Centers for Disease Control and Prevention
CIDA	Canadian International Development Agency
CTO	cognizant technical officer
DOTS	directly observed therapy–short course
GDF	Global Drug Facility
GLC	Green Light Committee
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GPSTB	Global Plan to Stop TB
HIV	human immunodeficiency virus
IEC	information, education, communication
ISAC	Intensified Support Action Countries
KNCV	Royal Netherlands Tuberculosis Foundation
NGO	nongovernmental organization
NTP	national TB program
PAHO	Pan American Health Organization
PMU	Project Management Unit
RPM+	Rational Pharmaceutical Management Plus Project
SINAN	Brazilian Notification System for Infectious Diseases
STAG	Strategic and Technical Advisory Group
TASC	Technical Assistance and Support Activity
TB	tuberculosis
TBCTA	Tuberculosis Coalition for Technical Assistance
TFT	Task Force for Training
USAID	United States Agency for International Development
WHO	World Health Organization

Executive Summary

I. Overview

The Tuberculosis Coalition for Technical Assistance (TBCTA) is widely recognized by major Stop TB Alliance partners as having provided unique, high-quality technical assistance on tuberculosis (TB) with worldwide scope. As such, it was an excellent choice to serve as an initial collaborator for USAID's entry into the TB arena, linking USAID with experienced and well-respected international expertise that is generally not available in U.S. institutions. The new TBCTA for the first time brought the key international TB organizations together into an operational, program-focused structure. TBCTA is now recognized as an innovative partnership that speaks with a single voice on major TB issues in countries where USAID works. The coalition has successfully collaborated to address international and national issues that have limited the expansion of DOTS* and has demonstrated that it is much more than the sum of its individual partner institutions. USAID health officers value this coordinated approach to TB, and it has been suggested as a model for other health programs (e.g., HIV/AIDS, malaria).

II. Program Results: Accelerating DOTS

Despite only about two years of project implementation in most field locations, the TBCTA is largely responsible for some significant improvements in program indicators (such as treatment success rate, case detection rate, and coverage), especially where substantial resources are dedicated to target provinces and districts. Continued efforts are likely to result in improvements in national TB program indicators in several countries. In countries where TBCTA has moved into an operational phase, program achievements are significant when measured against intermediate indicators (e.g., presence of a strategic plan, a drug-resistance survey, etc.). Program objectives can be fully met only if the cooperative agreement is extended to allow a full five years of activity.

TBCTA has generally done well in programming core funds to carry out initial "advocacy" visits, to expand the quantity and quality of international and regional training courses and training materials, and to significantly increase participation by TB leaders from developing countries in these courses. These courses are in high demand and will continue to be the primary courses for training TB leaders in a growing number of developing countries as global TB control efforts expand. Core funds are being used to bring additional and innovative support to the TB effort (e.g., a network of nurses and allied professionals, a new course for TB managers, a new course on planning for human resources in TB, and efforts to mobilize nongovernmental organizations (NGOs)). Core funding at the present level of \$3 million per year is being well used.

The results of TBCTA support for in-country programs have been mixed thus far. Initial advocacy visits to 15 countries were successful in stimulating USAID Mission interest and

* The World Health Organization (WHO) indicates that it no longer uses DOTS as an acronym. Previously, WHO used DOTS as an acronym for "directly observed treatment–short course."

knowledge about DOTS, and linking Missions to national TB programs. However, USAID Mission requests for the TBCTA support often have been significantly more complex than the scope anticipated in the TBCTA's grant proposal (including commodity procurement, local staff, and program operational costs, in addition to the expected technical assistance, training, coordination, and operational research). TBCTA has had considerable difficulty in responding to broader Mission requests. Success stories include Indonesia, the Dominican Republic, and the Democratic Republic of the Congo (D.R. Congo), whereas TBCTA programs have been disappointing in Brazil, Cambodia, and El Salvador. Program strengths include the following: (1) there has been excellent support for strategic planning and coordination; (2) the quality of technical assistance has been very high; (3) training has been appropriate and effective; and (4) institutional strengthening has been approached in a measured, step-wise fashion.

Major weaknesses include the following: (1) insufficient in-country management capacity, (2) delays in responding to some requests for technical assistance, (3) slow procurement of commodities, and (4) difficulties in moving funds to the field. In almost all countries, USAID Missions report they are increasingly satisfied with TBCTA performance and hope to continue working with TBCTA. Nevertheless, it is not yet clear whether TBCTA will be able to accelerate its actions to meet USAID Mission requests during the remainder of the grant period.

III. Program Objectives: Capacity Building and Technical Objectives

III.A. Meet global demands for technical assistance

The TBCTA partners have traditionally provided senior technical assistance in the form of semiannual country program reviews. This methodology remains valid, but it is insufficient. Additional short-term and in-country long-term technical assistance, along with a more agile approach, is needed to meet the increased demands associated with accelerating DOTS, the presence of large grants from the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund), and links to the President's Emergency Plan for AIDS Relief and the WHO 3x5 Initiative. Newer models of providing technical assistance (traditional to USAID, but new to most TBCTA partners) have gradually been established by TBCTA, but often with significant delays.

III.B. Expand technical assistance capacity

There are too few high-level international TB consultants available to perform the work that needs to be done, although TBCTA has successfully expanded its consultant base. TBCTA programs to train junior consultants and domestic TB specialists for international responsibilities are just gaining momentum and should be carefully evaluated prior to expansion. An untapped pool of experienced personnel (such as ex-national TB program managers) is increasingly available for TBCTA use.

III.C. Develop institutional and technical capacity for TB control in target countries

Trained TB program cadre. More and better training for key TB staff from target countries has been a major focus of TBCTA activities. TBCTA funds for international and regional training courses have improved course planning and greatly increased participation in existing courses from countries where USAID TB support has been initiated. Gaps in training have been identified, and new courses have been developed and executed for TB human resource managers and for TB program managers. To meet country-level training needs, a well-conceived approach has been adopted that includes national or sub-national training plans, training programs for master-trainers, development of course materials, and follow-up supervision. This model, most fully applied in Indonesia and South Africa, was evaluated in March 2004.

Laboratory improvements. Laboratory services are often a weak link in TB control programs. TBCTA has done excellent work in providing technical assistance, training, equipment, and supplies to strengthen laboratory networks and the use of quality control measures for smear microscopy. Further strengthening of microscopy networks is needed in most countries. Technical assistance, training, and equipment provided for reference laboratories will help ensure sufficient proficiency for participation in national drug-resistance surveys in Brazil, D.R. Congo, Indonesia, and a few other countries by 2004–2005. Further assistance is needed in other countries.

Supervision, monitoring, and information systems. The quality of supervision and the completeness and accuracy of TB data are weak in many countries. In several countries, TBCTA has effectively supported the provision of training, monitoring tools and methods, vehicles and bicycles—and, in some cases, additional staff—so that supervisory visits to regional, district, and other service facilities are regularly conducted by trained supervisors.

Program sustainability. TBCTA's careful, step-wise approach is appropriate and cost-effective to expand DOTS coverage while avoiding multi-drug resistance associated with poorly administered treatment. The major constraint to program sustainability is that host-country financing is not adequate to continue donor field-supported programs at their present levels (especially supervisory staff, supplies, per diem, and operational costs). TBCTA has done little to develop advocacy tools or to carry out training to encourage the greater level of funding needed to sustain TB programs.

IV. Program Objectives: Collaboration, Coordination, and Integration Objectives

Promote collaboration and cooperation with international TB programs. The TBCTA has been effective in linking its actions in an almost ideal fashion to the major international TB programs (the Stop TB Partnership and its Global Plan to Stop TB [GPSTB], the Global Fund, the Global Drug Facility [GDF], and the Green Light Committee [GLC]). TBCTA semiannual visits and field activities provide valuable information to key coalition partners who then use this information in the decision-making processes of the Stop TB Coordinating Board, the Global Fund, the GDF, and the GLC.

Establish linkages between TB and HIV/AIDS programs. This grant agreement objective was vaguely defined and there has been no focus of responsibility for it within the TBCTA structure. Some tension between TB and HIV/AIDS programs exists at national and global levels because of the greater size and influence of HIV/AIDS programs; most TB leaders believe that efforts to develop such linkages must be initiated or financed by HIV/AIDS programs. The team found little evidence of significant coordination between TB and HIV/AIDS programs at the service-delivery level; however, such initiatives are underway in Malawi and are planned in Mozambique, Nigeria, Senegal, and South Africa. The increased use of antiretroviral drugs makes coordination even more urgent. Opportunities exist for a stronger TBCTA role, since WHO and the Centers for Disease Control and Prevention (CDC) would now like to do more to strengthen coordination between TB and HIV/AIDS programs, while the International UNION Against Tuberculosis and Lung Disease (the UNION) has a new USAID grant to carry out TB-HIV/AIDS clinical and operations research. Most of these efforts would be supplements to existing in-country TBCTA programs and would use existing WHO, CDC, and UNION expertise.

Strengthen linkages between TB control programs and multi-drug resistant TB efforts. TBCTA rightly decided to focus its efforts on the prevention of multi-drug resistant TB by establishing effective DOTS programs. As more countries have established DOTS programs, several have been approved by the GLC for multi-drug resistant TB treatment or are in the process of obtaining GLC approval, often funded by the Global Fund. In many cases, TBCTA personnel have facilitated planning for multi-drug resistant TB treatment activities to be integrated within national TB programs. Brazil presents a special case that needs gentle TBCTA advocacy to encourage fuller adherence to international standards.

Integrate TB control efforts within primary health care services more effectively. TB diagnosis and treatment are generally located in general health facilities and are therefore integrated into a government's overall health system. In countries without a well-developed primary health care network, nongovernmental organizations and mission health services can play useful roles in behavior change communication, and TB case detection at the community and primary health care levels. Generally, TBCTA has worked with the existing national structures and has not promoted structural changes. Most of the recent country-level demand has been for guidance on how to best use community health workers and volunteers in support of TB control efforts; however, there is no current focus of responsibility within the TBCTA structure for responding to these demands or for promoting this broader objective.

Engage private practitioners and hospitals in TB control programs. In countries with a strong private medical health care system, the integration of private hospitals and medical practitioners into TB control programs is crucially important. Many patients with TB are diagnosed and treated in the private sector, but these cases are not reported, and their treatments are not directly observed. A high proportion of cases default and represent a significant risk for the creation of multi-drug resistant TB. Advocacy to encourage adherence to DOTS is urgently needed with

local and national medical societies, postgraduate medical schools, and senior health and other government leaders. TBCTA has fostered a successful model with training courses for private practitioners in private hospitals, outpatient clinics, private practices, and universities. TBCTA could usefully utilize and expand on guidelines established by the public-private mix subgroup of the DOTS expansion working group and stimulate other approaches to increase private-sector engagement.

Promote collaboration and cooperation with other USAID-funded agencies and stakeholders. In most TBCTA countries, a high level of collaboration and cooperation exists between TBCTA and other USAID-funded cooperative agencies, stakeholders, and organizations working in the field of TB. However, the team found two situations, both in Brazil, where TBCTA collaboration and cooperation were not as effective as they should be.

V. Administration and Management

TBCTA management. The new TBCTA internal structure had major teething problems, but has functioned surprisingly well for such an eclectic coalition. Some problems (i.e., transferring funds through the WHO/Pan American Health Organization structure) have taken time to resolve. TBCTA is still learning USAID procedures and USAID expectations, and is not as effective in communications and reporting as more experienced USAID grantees. TBCTA management of core funds is reasonably good, but efficient management of USAID Mission funds has been significantly below Mission expectations. The Project Management Unit has not been sufficiently rigorous in monitoring the responsibilities of the partners and has done little to establish an effective monitoring and evaluation system. The evaluation team identified several areas where steps to improve TBCTA internal efficiency are quickly needed, and where program and financial reporting need to be improved.

USAID management. Initially, USAID management of this grant was inadequate (by the Global Health Bureau) to foresee and resolve serious grant management issues, and inept (by the Office of Procurement). For both offices, supervision was not sufficient or adequate to avoid or to address these problems in a timely fashion. USAID's procurement office has been slow to respond in resolving administrative problems, despite an effective cognizant technical officer. On the other hand, USAID technical management of the program has been consistently strong, and USAID has suggested and supported positive and innovative initiatives.

VI. Recommendations for the Remainder of the Grant Period

VI.A. Primary programmatic recommendations

1. After a thorough internal program review and pipeline analysis, TBCTA should request a grant extension of at least one year to make up for the first "lost" year of program operations and to allow more complete achievement of program objectives. A USAID response needs to be provided quickly, but no later than June 2004.

2. TBCTA and USAID should determine what additional field support funds can be reasonably accepted into the program, given the existing pipelines and the present (or extended) grant period. USAID Missions should be advised as soon as possible to facilitate final Fiscal Year 2004 decisions on the use of field support funds.
3. TBCTA country work plans should not require annual USAID/Washington approval if they are based on approved medium-term development plans and if adequate funding is available. USAID Mission approval should be sufficient under these circumstances.
4. TBCTA should be proactive in identifying good models and locales for TB and HIV cross-referral and coordinated treatment related to the President's Emergency Plan for AIDS Relief and the WHO 3×5 Initiative. The TBCTA Project Management Unit has an excellent opportunity to play a more assertive leadership role by giving this objective a higher priority and facilitating a process involving WHO, CDC, and the UNION during the remainder of the grant period. The TBCTA should indicate a focal point for TB-HIV activities.
5. The Advocacy Task Force should quickly address identified needs (Brazil for adherence to DOTS and multi-drug resistant TB; Indonesia for private sector involvement and budget increases).
6. TBCTA-funded technical support that might be provided in concert with the recent Intensified Support and Action Countries Initiative should be carefully designed to avoid undercutting low-paid national TB program staff, and to ensure sustainable improvements.
7. TBCTA and USAID should review the lengthy process and many steps between work plan preparation and funding allocations to country programs with the objective of reducing the lengthy time taken to date (e.g., all key parties could meet to simultaneously discuss and approve a new work plan, such as occurs in Brazil).
8. Consultants' half-yearly reports could be more related to the objectives of the national TB programs. The technical assistance could also further stimulate routine reporting by the national programs to the upper levels of the Ministry of Health, with copies made available to donors, which would cover some parts of consultants' travel reports.
9. Given the increasing concern of global multi-drug resistant TB, TBCTA should raise the issue of direct supervision and seek modifications to reduce the risk of producing multi-drug resistant TB.
10. The program to train junior consultants should be carefully evaluated before being expanded. The increasing number of experienced personnel in national TB programs should be considered as candidates to receive further training. They then could perform part-time consultancies besides working at the central level in their own national programs.

11. Operational research should have as its main focus to build up research capacity in the country, as much as possible within and involving the national TB program.

VI.B. Implementation, monitoring, and reporting recommendations

12. The Project Management Unit needs to play a more assertive role in ensuring timely implementation by all partners. This should include administrative monitoring visits where TBCTA programs include significant provincial-and district-level activities.

13. TBCTA program reports should focus on results rather than on activities. More in-depth country annexes should be provided directly to participating USAID Missions to meet their monitoring and reporting needs. TBCTA should strengthen its practically nonexistent monitoring and evaluation system, and should quickly finalize process indicators to help measure project progress.

14. Financial reports would be much more useful if they were more timely and were expanded to include accrued expenditures and expected expenditures for the next reporting period.

15. The Project Management Unit should gather “lessons learned” and models of program success, and disseminate them through various means throughout its program network, to USAID, and to other key TB entities.

16. To ensure effective coordination, USAID Missions should organize periodic meetings of all its TB-funded implementing agencies; in some cases, these meetings should include USAID’s key HIV-funded implementing agencies.

VII. Key Recommendations Beyond the Grant Period

USAID role. USAID has now entered the TB arena and, with core and field support funds, has begun to finance programs and activities that are widely respected, as they fill important gaps, provide added value, and add a major stimulus to the Stop TB initiative. USAID should continue to be a major bilateral TB program donor, probably through the Millennium Goal period (2015).

Constraints to DOTS expansion—Core-funded activities. There will continue to be a strong demand for the primary core-funded activities financed via TBCTA to provide essential, complementary support to expanding field programs funded via the Global Fund, USAID, Canadian International Development Agency, and TB-HIV initiatives. Significant constraints to DOTS expansion are addressed through activities that include program coordination, (especially linkages to the Global Fund, GDF, and GLC) international and regional training programs to greatly expand the TB capability in least-developed countries for program leadership, planning, research and management, operational research, preparation of advocacy tools, stimulation of private sector involvement with and adherence to DOTS, and encouragement of appropriate social mobilization models. Increased attention should be placed on developing effective TB-HIV

program coordination, multi-drug resistant TB, private sector involvement, and social mobilization.

Constraints to DOTS expansion—Mission-funded activities. In countries with at least moderately strong public health systems (i.e., those in South and Southeast Asia, Latin America, and the Caribbean), the constraints to the expansion of DOTS can be addressed in five to eight years with a national and provincial program that is similar to the TBCTA program in Indonesia. This package of USAID-funded assistance can be implemented at the national level and in a few provinces. The “capital” that needs to be invested typically includes strategic planning, improved data collection systems as key elements of a monitoring and evaluation program, an upgraded laboratory network, a well-organized and funded domestic in-service training program, and finally, increased human resources, mobility, and funding for improved supervision. Additional elements of the program should include working with the private sector providers of TB services, coordination with HIV programs, and advocacy to increase host country funding. The model, once it is recognized as effective by the host country, can be used for Global Fund and other donor-assisted provincial TB programs, as in Indonesia.

In countries with weak public health systems (i.e., Haiti and most African nations), the constraints to DOTS expansion are more intractable, and will require a longer time frame (at least through 2015), greater numbers of consultants to provide long-term technical assistance, and significant donor support for local cost financing. In some countries, “capital” investment for DOTS will need to flow to faith-based health service systems, other NGOs, and via broad, donor-funded rural health initiatives (e.g., SANRU in D.R. Congo), as well as through the public health system. Experience in several African countries demonstrates that a strong TB program can be mounted and can be effective despite the serious systemic constraints that these countries face. In most of these countries, a stronger link to HIV activities will be appropriate. A key issue is the gradual assumption of local cost responsibility for TB programs by the host government, which probably should be addressed as part of sector-wide health reform/health financing improvement efforts by the donors.

Country selection. TBCTA presently works in eight of the 22 high-burden TB countries, in addition to six other countries. USAID TB programs are present in some form in eight others. At present only three high-burden countries with USAID Missions do not have some USAID-funded TB activity. Although the TBCTA partners have limited capacity, they already have worked in many of these non-TBCTA countries without USAID funding, often performing semiannual planning or monitoring visits. Unless TB earmarks are increased, USAID will probably need to select only a few additional countries where it can provide a substantial level of resource to have a significant impact, or where relatively modest USAID funding can leverage and provide support to a major Global Fund grant.

TBCTA is a unique structure that is widely recognized as a positive model for international collaboration. Almost without argument, it includes the most experienced and respected expertise

in international TB that is available to USAID or any other donor. It would be difficult for USAID to find a major TB collaborating institution to carry out core-funded activities, international coordination, and strategic planning/monitoring for national TB programs at the present level of success.

TBCTA has been stretched to provide the wide variety of country-level program support that USAID Missions have requested. Managing major provincial-level or state-level programs and large commodity procurements has been particularly labor-intensive. These efforts, which are not elements of TBCTA's comparative advantage, have required a great deal of TBCTA management time. In the future, one of two models of field-level support might be considered:

1. Core plus limited field support: An agreement with a centrally funded entity with a statement of work that includes core-funded activities and allows buy-ins of field-level support to countries where the entity has been traditionally involved in program operations or where USAID plans to make major investments in TB. To increase on-the-ground program management capacity, the centrally funded entity might be encouraged to establish sub-grantee relationships with one to two experienced USAID grantees or contractors, or with strong, local non-TB NGOs, or both. These sub-grantees would establish national offices or use existing national offices, and would have primary management responsibility (but not technical) responsibility for field-level support where major provincial support is envisaged. Missions would use TASC II contractors or bilateral health program contractors or grantees for their other TB needs, especially those at the provincial and district levels.
2. Core only: An agreement with a centrally funded entity with a statement of work that is similar to the original TBCTA proposal. This would include continuation of TBCTA core-funded activities and would include the following services for USAID Missions: "advocacy visits"; semiannual senior-consultant national TB program evaluations; training at international and regional courses for selected host country TB personnel; short-term technical assistance for program design, evaluation or redesign; and short-term technical assistance for problem resolution.

Under this model, the centrally funded entity would not provide the following services to USAID Missions: commodity procurement, in-country training, and in-country provision of local costs for provincial and district supervision and operations. USAID Missions would be encouraged to use TASC II contractors or bilateral health program contractors for all of the services mentioned in the previous paragraph.

USAID management of a future program needs to recognize the international nature of the DOTS expansion effort, as well as its urgency. As has occurred in the case of HIV/AIDS programs, some traditional USAID regulations should be relaxed or waived. In a few transition countries, such as D.R. Congo, an exception to USAID's prohibition of salary enhancements should be considered.

I. Introduction

I.A. Background

Globally, tuberculosis (TB) is a problem of enormous and growing dimensions. In 2000, it was estimated that about eight million new cases of TB occurred worldwide, resulting in two million deaths. TB kills more people than any other single infectious agent except the human immunodeficiency virus (HIV). Ninety-five percent of all TB cases and 98 percent of TB deaths occur in developing countries.

TB has a major impact on the economic development of countries with a high incidence of the disease. In developing countries, three to four months' of family income or up to 20 percent to 30 percent of annual household income can be lost to TB. The potential cost to a nation in lost productivity from TB is estimated to be between 4 percent and 7 percent of GDP. Not only does TB currently exact a heavy toll in human suffering and economic losses, it is increasing every year. A major contributing factor to the incidence of TB is infection with HIV. Today, about 15 million people have dual infections with *Mycobacterium tuberculosis* and HIV. In many African countries, where TB is often perceived as being synonymous with the acquired immune deficiency syndrome (AIDS), more than one-half of all patients with TB also have HIV infection. In some countries, the HIV epidemic has led to a tripling or even a quadrupling of the incidence of TB during the past ten years. Many patients with AIDS die from TB.

Eight Points of Tuberculosis Control

- In Europe and North America, people ask whether TB still exists, while in low-income countries, they ask whether something can be done about it.
- There has probably never been more TB in the world than today—50 years after effective drugs became available!
- Unlike the perspective on many other infectious diseases, there is general agreement in the international community on how to control TB—through the well-documented DOTS strategy. The basics of DOTS are not negotiable!
- TB treatment is lengthy (six to eight months) and demanding on the patient and health services alike. It requires a welcoming and effective health service, as well as a well-informed and motivated patient. TB treatment results reflect the quality of health services.
- Bad or incomplete TB control is worse than no TB control because it produces multi-drug resistant TB.
- Drugs for a full, normal TB treatment protocol cost between \$10 and \$20 per patient, whereas multi-drug resistant TB treatment costs at least \$4,000 per patient.
- Is TB control vertical, horizontal, or integrated? TB diagnosis and treatment are integrated at the service delivery level, but a need exists for strong supervision, and a monitoring structure from national, provincial, and district levels.
- Community and private sector involvement is important in TB control, but the first condition is that a functioning TB control program exists in the public health facilities to receive the patients referred from the communities.

I.A.1. International strategy for tuberculosis control

Global TB control is possible through a well-established strategy known as DOTS.¹ Worldwide, 180 countries have now adapted the DOTS strategy recommended by the World Health Organization (WHO) and the International UNION Against Tuberculosis and Lung Disease.² It is one of the most cost-effective health interventions and is rigorously promoted around the world.

Implementation of DOTS requires a strong primary health care system that ensures sustained access for patients with TB to diagnosis, treatment, and follow-up services. Important elements of such a system include a network of capable laboratories, a recording and reporting system, and a logistics system that ensures a secure supply of drugs. Political commitment to fund and implement effective national TB control programs is essential to promote global TB control and to avoid the consequences of failure. In addition, implementation of DOTS requires improved access to primary care services that are affordable, equitable, committed, and well organized. Education and training are essential elements to ensure the availability of human resources.

In the context of poorly-managed programs with inadequate screening and diagnostic and treatment facilities, insufficiently trained and overextended staff, significant rates of incomplete treatment, and frequent shortages of drugs, there is considerable risk that poorly run TB control programs can lead to the emergence of more widespread multi-drug resistance. The cost of the drugs for a full program of first-line TB treatment is approximately \$10–\$20. The cost of drugs for second-line, multi-drug resistant TB treatment is approximately \$4,000 through the Green Light Committee (GLC), but the cost is much higher in the open market. Thus, TB programs must be carried out carefully and with strong quality control. A poor TB program is worse than no TB program.

The global targets³ are to reach 85 percent treatment success and 70 percent case detection of smear-positive TB cases by 2005, with special focus on the 22 high-burden TB countries in order to reach the goal.

¹ WHO indicates that it no longer uses DOTS as an acronym. Previously, WHO often used DOTS as an acronym for “directly observed treatment–short course.”

² The International UNION Against Tuberculosis and Lung Disease operates in English, French, and Spanish, with a different name and acronym for each language (IUATLD in English, UICTMR in French, and UICTER in Spanish). Because none of these acronyms are easy to pronounce, most people refer to the organization as “The UNION.” In this report, we refer to the IUATLD as “the UNION.”

³ According to the 2002 WHO Global TB Control report, 22 countries account for about 80 percent of the global TB burden. In order of TB burden they are: India, China, Indonesia, Nigeria, Bangladesh, Ethiopia, Philippines, Pakistan, South Africa, Russia, Democratic Republic of the Congo, Kenya, Vietnam, Tanzania, Brazil, Thailand, Uganda, Burma, Mozambique, Cambodia, Zimbabwe, and Afghanistan.

1.A.2. USAID’s commitment to tuberculosis control

USAID’s goal is to contribute to the global reduction of morbidity and mortality associated with TB. In order to achieve this goal, USAID’s objective is to enhance the capacity of developing and transitional countries to prevent and cure TB to achieve global targets of 70 percent case detection and 85 percent treatment success rates for smear-positive TB cases. Specifically, USAID provides financial and technical support to:

- Expand and strengthen DOTS programs
- Increase and strengthen human resource capacity
- Develop and disseminate new tools and approaches
- Adapt DOTS to address special challenges

USAID is the largest bilateral donor, supporting global TB prevention and control in 34 countries. Support for TB control and DOTS increased from \$8 million in 1998 to \$75 million in 2003. USAID’s TB effort is concentrated in a limited number of countries (Table 1) in order to focus financial resources, technical assistance from USAID/Washington and its partners, and staffing. Priority countries (or sub-regions of these countries) were selected on the basis of one or more of the following criteria:

- High incidence of TB (estimated incidence rates of greater than 100 per 100,000 people), high number of total TB cases, or both
- HIV/AIDS burden
- Risk of an escalating epidemic of multi-drug resistant TB
- Government commitment and technical and managerial capacity
- Capacity of USAID and other key TB partners
- Foreign policy considerations

Table 1. Countries with Endemic Tuberculosis and USAID Assistance Levels

Category	Countries ⁴	USAID Funding	USAID/W TA Priority
Tier 1 (17)	Bangladesh, Brazil, Cambodia, D.R. Congo, Dominican Republic, Ethiopia, Haiti, India, Indonesia, Kenya, Mexico, Nigeria, Pakistan, Philippines, Russia, South Africa, Uganda	Higher	Higher
Tier 2 (18)	Armenia, Bolivia, El Salvador, Egypt, Georgia, Honduras, Kazakhstan, Kyrgyzstan, Malawi, Moldova, Nigeria, Peru, Romania, Senegal, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, ANE Regional, ⁵ E&E Regional ⁶	Lower	Lower

⁴ Burma, China, Mozambique, Tanzania, Thailand, and Zimbabwe are among the 22 top high-burden countries but do not appear in the table. Despite substantial TB burdens (and in many cases, multi-drug resistant TB and HIV/AIDS), significant legal and/or operational obstacles exist to USAID support for TB control. If country circumstances should change so that these obstacles are no longer present, USAID will consider adding that country to the priority list provided adequate funds are available.

⁵ Some support is provided to Lao People’s Democratic Republic and Vietnam.

⁶ Some support is provided to Estonia, Kosovo, Latvia, Lithuania, and Romania.

I.A.3. USAID partners

USAID works with a wide array of partners, including health ministries, national TB programs, local institutions at the national level, multilateral and bilateral donors, international organizations such as WHO, private corporations, foundations, faith-based groups, other nongovernmental organizations (NGOs), and other U.S. Government agencies, including the Centers for Disease Control and Prevention (CDC), the National Institutes of Health, the Department of State, and the Department of Health and Human Services. USAID also provides funding to the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund).

USAID and the Stop TB Partnership. USAID is a financial supporter of the Stop TB Partnership, is a member of the Stop TB Partnership Coordinating Board, and is represented on all Stop TB Partnership working groups (DOTS expansion, new TB drug development, DOTS-Plus for multi-drug resistant TB, TB/HIV/AIDS, TB diagnostics, and TB vaccines). USAID support was instrumental in the development of the Global Plan to Stop TB (GPSTB), and to the establishment of national-level Stop TB Partnerships and preparation of plans for DOTS expansion in all 22 high-burden countries.

USAID and the Global TB Drug Facility. An initiative of the Stop TB Partnership, the Global TB Drug Facility (GDF), seeks to improve access to high-quality anti-TB drugs and aims to provide free drugs for 10 million people by 2005. The GDF provides grants for drugs to countries to support DOTS expansion, and offers a direct procurement mechanism for countries and NGOs to purchase drugs with their own resources. Through Fiscal Year 2003, USAID has provided \$6,250,000 to the GDF for the purchase of TB drugs. USAID also provides technical assistance to the GDF to ensure that adequate attention is paid to pharmaceutical management issues in GDF grants. The GDF has contributed to the decline of average international prices for a full course of TB treatment by 30 percent to about \$10, and has provided TB drugs for more than 1.6 million patients.

The Tuberculosis Coalition for Technical Assistance. The Tuberculosis Coalition for Technical Assistance (TBCTA) is a USAID-supported project executed through a unique partnership of six organizations that are actively involved in global TB control. The six partnership organizations came together to submit an unsolicited proposal to USAID in 2000. The proposal was approved by USAID in September 2000 after some modest revisions. The TBCTA then established its formal and operational structures to manage this USAID-funded program.

Originally, the project had a budget of almost \$29 million for the five-year period September 2000–September 2005. Approximately half of this funding was anticipated to be “core” funds provided by USAID/Washington, and half were anticipated to be “field support” funds provided

by USAID Missions and USAID regional offices.⁷ Because of the greater than anticipated demand for TB technical assistance by the USAID Missions, at the end of Year 3, the ceiling was increased to \$42.8 million. The following organizations form the partnership:

1. The Royal Netherlands Tuberculosis Foundation (KNCV), based in The Hague, was established in 1903 as a unique public-private partnership. KNCV promotes effective and efficient TB control within a national and international context and acts as an implementing agency for projects financed by the Dutch government and other Dutch international foundations. Since the 1980s, KNCV has contributed to the development and implementation of effective TB control programs in low-income countries. Approximately two-thirds of its total 2003 expenditures were for international activities, whereas one-third was for domestic TB program support in the Netherlands. KNCV receives funding from a number of sources for its international program, including the Dutch government, Canadian International Development Agency (CIDA), the European Union, WHO, and the World Bank. It also hosts the International Tuberculosis Surveillance Centre and the Tuberculosis Surveillance Research Unit, contributes to international policy development, and collaborates with numerous international organizations. KNCV has a professional staff of 75 and uses a consulting network of approximately 25 primary consultants with a wide variety of experience and expertise. Many of the staff and consultants have many years of experience working and living in developing countries. It is the prime organization for this cooperative agreement (the “grantee”), and hosts the Project Management Unit (PMU), which is responsible for day-to-day administrative, financial, and grant management activities.
2. The International UNION Against Tuberculosis and Lung Disease (i.e., the UNION), a nongovernmental organization headquartered in Paris, is comprised of constituent, organizational, and individual members. There are UNION regional organizations in North America, Latin America, Europe, Africa, Asia, and the Middle East. The UNION disseminates information on TB and lung disease, coordinates and assists the work of its members throughout the world, and maintains close links with WHO, other United Nations agencies, and governmental and nongovernmental organizations in the health and development sectors. The UNION’s expertise and its activities are focused on technical assistance, education, and research. The headquarters office has a staff of approximately 20 professionals. Its annual budget is approximately \$17 million, and it manages donor funding from the governments of Canada, France, Norway, Switzerland, and the United States, as well as from the European Union, the Bill and Melinda Gates Foundation, the Norwegian Heart and Lung Association, and the Swiss Pulmonary League. In addition to the TBCTA, the UNION signed a cooperative agreement with USAID in September 2003

⁷ Core fund obligations were estimated to be approximately \$3 million/year, or a total of \$15 million over five years.

for a five-year program of clinical trials, regional TB-laboratory strengthening, and operational research for TB-HIV.

3. The World Health Organization, headquartered in Geneva, has a presence in virtually all developing countries and has responsibility for defining the international health policy for TB control. It provides technical assistance and advice to countries on policy formulation, project planning and implementation, and monitoring and evaluation of TB control activities. The WHO maintains global surveillance and monitoring of TB drug-resistance incidence, and monitors the status of TB control programs. Three technical/medical officers work part-time to carry out, manage, and monitor TBCTA-related funds and program activities within the TB strategy and operations unit, a unit of the Stop TB Department.
4. The American Lung Association (ALA), based in New York City, is the oldest voluntary health association in the United States and has 78 state and local organizations throughout the country. It is the constituent member in the United States to the UNION. Its mission is the prevention and control of lung diseases, and it performs its work primarily through public education, public policy, and advocacy activities. The ALA works internationally solely in the areas of advocacy and fostering the development of international protocols. The ALA is the “lead” organization for the TBCTA Advocacy Task Force.
5. The American Thoracic Society (ATS), also based in New York City, was founded in 1905. It is an educational and scientific society with nearly 14,000 members, and is the major medical professional and scientific organization with an interest in TB. The ATS collaborates with CDC in developing guidelines for TB prevention and control used both in the United States and in other parts of the world. The ATS publishes a highly respected and widely read scientific journal. In addition, the ATS conducts an annual international conference that attracts 15,000–16,000 attendees, and is a major forum for the presentation of new information about TB and its control, and an arena for TB training and education. A broad range of specific technical expertise is represented in the organization. The ATS role in the TBCTA is focused primarily on international and national advocacy, and on broadening the base of international TB expertise.
6. The CDC, based in Atlanta, Georgia, is a U.S. federal public health agency. It promotes health and quality of life by preventing and controlling disease, injury, and disability. Within the CDC, the Division of Tuberculosis Elimination is responsible for domestic and international TB prevention and control activities. Activities are carried out in collaboration with state and local health departments, academic/research institutions, and other partners such as ministries of health in foreign countries, and domestic and international NGOs. CDC provides technical assistance and consultation in a broad range of TB control areas. Although it is not an official member of TBCTA, CDC coordinates

its annual work plan with TBCTA and participates in all TBCTA board meetings. USAID funds provided to CDC via an interagency agreement can be used to support TBCTA activities and objectives. In addition, the CDC implements a major international HIV/AIDS program (the Global AIDS Program), which is primarily funded by USAID, and which may include HIV and TB activities.

The purpose of TBCTA assistance is twofold. First, it is meant to improve and expand the capacity of USAID to respond to the global TB epidemic by providing state-of-the-art, context-appropriate, technically sound, and cost-effective consultation and technical assistance to high-incidence countries and USAID Missions. In addition, it complements and expands existing global TB control efforts, such as the Stop TB Partnership, the programs of WHO, and the activities of individual TBCTA partners. The ultimate goal of TBCTA is to work in collaboration with other global TB partners to accelerate the pace of DOTS expansion in order to meet the global targets mentioned above.

The TBCTA established two managerial levels to enable the partners to operate efficiently and effectively:

- A board of directors, which is responsible for overall policy, planning, quality assurance, and decision-making activities involving all partner organizations
- A Program Management Unit, which is responsible for day-to-day project management, and which is based at the KNCV offices in The Hague.

The TBCTA programmatic objectives are as follows:

- Accelerate implementation and expansion of the DOTS strategy with emphasis on the high-burden countries as well as other countries strategically important to USAID
- Develop institutional and technical capacity for TB control in target countries:
 - o Integrate TB control efforts within primary health care services more effectively
 - o Develop or strengthen linkages between TB control programs and HIV/AIDS prevention and treatment programs, and multi-drug resistance efforts
 - o Disseminate the objectives of the TBCTA to USAID Missions and the countries selected
 - o Expand the capacity for providing high-quality technical assistance worldwide

TBCTA has received USAID funds from several USAID sources:

1. “Core funds” (approximately \$3 million/year) provided by the USAID/Washington Bureau for Global Health. These funds are used for: (1) overall program management (TBCTA staff, the costs of program management [quarterly board meetings and task force meetings]) and reporting; (2) initial “advocacy visits” to countries where TBCTA assistance might be needed; (3) international and regional training courses and workshops, and some international

meetings (these costs are normally shared with other donors); and (4) limited operational research.

2. “Field support” funds provided by USAID Missions or USAID regional offices to carry out specific scopes of work in each country or region. At the time of the evaluation, TBCTA had received funding and was active in 13 USAID countries (Brazil, Cambodia, D.R. Congo, the Dominican Republic, El Salvador, Egypt, Haiti, Indonesia, Malawi, Mozambique, Nigeria, Senegal, and South Africa). Ghana has since been added to the TBCTA portfolio, but was not included in the evaluation. Each country focuses on different gaps in the TB control program that need addressing in order to reach the global targets. The financial transfers to date have varied significantly. There are several large programs; these countries have the largest “buy-ins”:

Indonesia, \$4.975 million; Brazil, \$1.852 million; D.R. Congo, \$1.554 million
South Africa, \$1.45 million; Senegal, \$1.4 million

TBCTA has also been asked to manage quite small programs with the smallest “buy-ins” from these countries:

Mozambique, \$150,000; Cambodia, \$253,900; Dominican Republic, \$270,000

Mid-sized programs are located in these countries:

Nigeria, \$1.076 million (one year of funding thus far); Haiti, \$800,000
Malawi, \$500,000; El Salvador, \$499,000; Egypt, \$389,000 (beginning in 2003)

In addition, the four USAID regional bureaus—Asia and the Near East, Latin America and the Caribbean, sub-Saharan Africa, and Europe and Eurasia—as well as the East Africa Regional Office (REDSO), have transferred funding to TBCTA, each with region-specific scopes of work.

Funding levels from these regional programs are as follows:

Sub-Saharan Africa, \$700,000; Asia and the Near East, \$451,000
Latin America and the Caribbean, \$444,500; REDSO, \$345,000
Europe and Eurasia, \$235,000

Total field support funds transferred into the TBCTA grant (or “obligated” into the grant) by USAID fiscal year have been as follows:

FY 2001, \$1.0 million
FY 2002, \$3.8 million
FY 2003, \$8.4 million
FY 2004, \$10.0 (estimated)

A summary of total funds obligated from each source appears in Annex C, Financial Tables.

Key Constraints to DOTS Expansion

The global experience to date could provide useful information for consideration by national TB program (NTP) planners before planning and implementing their own NTP plans. The WHO 2003 Global Tuberculosis Control Report reveals that the five major constraints to reaching the DOTS targets in high-burden countries were as follows:

Inadequate preparation for decentralization: Health sector reform, and especially the decentralization of TB control activities, were identified as a major constraint in Bangladesh, Brazil, Ethiopia, Indonesia, Mozambique, Nigeria, and South Africa. District and provincial governments had not adequately participated in or funded TB control. By contrast, reform has provided opportunities in Cambodia and Kenya, where there is now the potential for better access to DOTS.

Countries where systems were already decentralized, such as the Philippines, found it hard to expand DOTS quickly because of the time needed to convince local authorities to participate. Possible solutions include strengthening central and provincial teams, and providing technical support to local health authorities.

Weak health infrastructure: Weak infrastructures have restricted access to health services in Afghanistan, Burma, D.R. Congo, Ethiopia, and Nigeria. In D.R. Congo, DOTS is expanding only slowly into areas affected by war or civil unrest. Charging patients, especially the poor, for treatment limits their access to it. Remedial actions proposed include the rebuilding of health infrastructures, using community-based DOTS treatment, admitting hospitals to the network of DOTS facilities, and providing free diagnosis and treatment for patients.

Inadequate political commitment: Stronger moral and financial support for TB control is needed in Brazil, D.R. Congo, Ethiopia, Mozambique, South Africa, and Zimbabwe. Remedial actions include providing better support to local governments following decentralization, forming provincial task forces, and expanding international support by mechanisms that include high-level advocacy missions.

Noncompliance of the private sector with the DOTS strategy: Noncompliant and unregulated private practitioners are a major constraint in Afghanistan, Bangladesh, India, Indonesia, Kenya, Pakistan, the Philippines, and Uganda. Moves to involve NGOs and hospitals in DOTS should help to increase access. Public-private mix projects have begun in India, Indonesia, Kenya, the Philippines, and Vietnam. Public-private mixes should be incorporated into national policies.

Lack of qualified staff: Major deficiencies in staff at the central level are a problem in China, Ethiopia, India, Indonesia, Nigeria, Pakistan, South Africa, Tanzania, Uganda, and Zimbabwe. Also, following decentralization, there has been inadequate planning for and provision of the kind of technical support that would enable staff at the provincial and district levels to successfully assume the new responsibilities assigned to them. Remedial actions proposed include in-service and preservice training; mechanisms to improve staff recruitment, retention, and motivation; and secondments from academic institutions.

TB program planners should address each of these factors before launching a DOTS program. In most high-burden countries, the DOTS program would probably be implemented as a vertical program during early implementation and the rapid DOTS expansion phase, but be integrated at the public health clinic service level (if properly staffed and equipped), mainly for purposes of economy and sustainability.

I.B. Objectives of the Evaluation

The principal objective of this evaluation is to review the performance, impact, and lessons learned from implementation of the TBCTA project on a global level, as well as at the USAID Mission level. This report will retrospectively examine the TBCTA cooperative agreement activities and answer the principal question, “What is the evidence that TBCTA has made or will make in accelerating the pace of DOTS expansion toward reaching the global targets and building institutional and individual capacities for TB control in targeted countries?”

Other key questions in the evaluation include:

- Is the sum of the coalition greater than the individual parts? Has the coalition been advantageous for USAID, each of the partners individually, and the broader TB community?
- Do the coalition partners meet the needs of USAID and the global demand for TB control? Is the coalition too broad or narrow in partners and focus?
- Has USAID facilitated the work of the TBCTA?
- How have the capacity of the partners been strengthened?
- What are the overall lessons learned and best practices from the coalition effort?

The full set of evaluation questions, including technical, collaboration/coordination, and management aspects, is found in the evaluation scope of work, located in Annex E.

The results from this evaluation will be used to provide feedback to TBCTA on project operations and management, and recommendations to TBCTA and USAID on implementation progress and results. In addition, the evaluation will inform USAID regarding the future design of a follow-on activity.

I.C. Methodology

The evaluation was carried out during the periods November 3–7, 2003, and January 10–February 20, 2004, by a three-person team of independent consultants (an evaluation specialist with significant USAID experience, a TB specialist, and a public health specialist). The team gathered information using a variety of sources:

- On-site interviews with key USAID/Washington personnel and key TBCTA partner personnel at KNCV, the UNION, WHO, and ALA offices.
- Telephone interviews with key TBCTA partner personnel at CDC and ATS, with some USAID/Washington personnel, with several USAID Mission health officers, and with several national TB program managers.
- Field visits (5–7 days each) to project locations and sites in Brazil, D.R. Congo, and Indonesia. These visits included interviews with Ministry of Health personnel and local service providers and recipients, USAID Mission staff, and TBCTA program staff.

- Written questionnaires that were sent to USAID Mission personnel and national TB program managers in TBCTA countries the team did not visit. Answers were provided by phone or in written format by all participating USAID Missions and by five national TB program managers in TBCTA countries.
- Review of TBCTA program documents, including minutes and key documents discussed at all of the TBCTA board meetings and task force meetings, technical proposals, the cooperative agreement, yearly work plans, financial documents, progress reports, and other relevant materials.
- USAID project documents and project correspondence.
- USAID Mission documents and correspondence (in Brazil and Indonesia).

A list of persons with whom the evaluation team met appears in Annex A, and a list of the documents the team reviewed appears in Annex B. The evaluation scope of work is provided Annex E.

The criteria provided in the scope of work for selecting the countries the evaluation team visited included the following: significant USAID field support, implementation by each of the three main partners (KNCV, WHO, and the UNION), and geographic diversity.

After consultations with USAID/Washington and USAID Missions, the team elected to visit three countries in three regions where TBCTA has been most active and where the TBCTA “lead” organizations differed (KNCV in Indonesia, the UNION in D.R. Congo, and WHO in Brazil).

The evaluation team presented its draft conclusions and recommendations to USAID/Washington staff on February 19, 2004, and to the TBCTA board on February 24, 2004. In both cases, oral and written comments and suggestions were solicited. The team received several useful comments and clarifications. A draft report was prepared by March 15, 2004, and was transmitted to USAID and TBCTA for review and comments. All comments were received by April 5. The evaluation team then finalized the text of the report by during the next week. The report underwent a final editing and was prepared by The Synergy Project and was made available in mid-April 2004.

II. Program Goal and Progress to Date

II.A. Program Goal, Objectives, and Indicators

The goal of TBCTA is: “With other partners, accelerate the pace of DOTS expansion by reaching the global target of at least 85 percent cure and 70 percent detection of infectious cases in selected countries by 2005 rather than 2015.”⁸

The primary objective is to assist the Bureau of Global Health Office of Population, Health, and Nutrition and USAID Missions and their local public/private/NGO/donor partners in the furtherance of USAID’s infectious disease strategy as it relates to TB.⁹

The Programmatic Objectives are these:

1. Accelerate implementation and expansion of the DOTS strategy in developing countries. Initial emphasis was to focus on the 22 countries that contribute to 80 percent of the estimated global TB burden and other countries to which USAID has given priority.
2. Develop institutional and technical capacities for TB control in target countries.¹⁰
3. Integrate TB control efforts within primary health care services more effectively, thus enhancing overall health care delivery.
4. Develop or strengthen linkages between TB control programs and HIV/AIDS prevention and treatment programs, and multi-drug resistance efforts.
5. Disseminate the objectives of the TBCTA to USAID Missions and the selected countries by preparing and distributing information materials, and by conducting introductory visits to interested USAID Missions and countries.
6. Expand the capacity for providing high-quality technical assistance worldwide by organizing training for and access to qualified consultants.¹¹

⁸ Project Proposal, p.12. [TBCTA submitted a project proposal to USAID, which was accepted. We refer to this proposal throughout this evaluation].

⁹ This will be accomplished by providing policy and programmatic guidance, as well as administrative, managerial, and technical assistance. This collaboration will be evidenced by the elimination of duplicative activities, consolidation of separate efforts to achieve a common objective, and by joint programming and pooling of resources both in the field and at headquarters. Project proposal, p. 12.

¹⁰ Activities include: (1) staff training in a variety of related fields (general management, logistics management, technical capacity, supervision, operational research); (2) support for administration, general management, logistics management, supervision, and operational research; (3) development of standardized monitoring [results] and quality control systems in national programs; and (4) thorough engagement of private practitioners and community organizations in TB control. Activities consist of training courses, workshops, intracountry and intercountry meetings, program review missions, and consensus-building.

¹¹ Activities include organizing formal trainings and on-the-spot trainings by “trainee” participation in TBCTA consultation, evaluation, and monitoring missions. Project proposal, pp.12–13.

The Project Proposal mentions four intermediate results or areas of concentration¹²:

1. Impact: accessibility to care (numbers of suspected cases examined), affordability of treatment (percent of patients receiving free treatment), and adherence to treatment (treatment success rate, default rate, etc.)
2. Outcome: reduction of TB mortality and prevalence (the target is a 50 percent reduction in 10 years)
3. Output: cure rate (85 percent target), detection rate (70 percent target), multi-drug resistance rate (continuous decrease)
4. Process indicators: in order to accelerate the pace of DOTS expansion, 14 process indicators (“sub-intermediate results”) are specified. These are:
 - The presence of a national development plan for TB control
 - Drug supply (target: drugs always available to all patients with TB)
 - Quality of drugs: a quality assurance system is in place (target: only drugs of known quality are to be distributed)
 - National and local funding for TB control (target: funding is increased to reach sustainability)
 - Staff availability (target: staff have sufficient time to ensure that the quality of TB control is sustained)
 - Staff capacity (target: staff knowledge at each level according to task description): (1) 125 staff trained at international training courses; (2) 1,550 national staff trained at the national level; and (3) 45 professionals trained as international consultants
 - A functional central TB unit
 - A national manual developed, disseminated, and utilized
 - A functional reporting and recording system
 - A function network of microscopy services
 - Laboratory supplies (target: supplies are available to all suspected cases and patients)
 - Treatment services are integrated at the local primary health care level
 - A functional supervision system exists at all levels

¹² Project proposal, pp. 19–20.

The TBCTA proposal appropriately uses the Stop TB Partnership terminology and indicators for its objectives. The proposal identified four output-level targets that would be the highest level of “management interest” for the project. These are the main indicators agreed upon by USAID and TBCTA to measure TBCTA success:

- Number of selected countries that have developed a national plan for DOTS implementation countrywide (medium-term development plans for TB control)
- Number of countries that have implemented drug resistance surveillance (defined as surveys or continuous surveillance per international guidelines using an internationally approved reference laboratory)
- Proportion of population at risk for TB living in an area where a DOTS strategy is available
- Number of countries that report cure rates of 85 percent or greater and case detection rates of 70 percent or more¹³

This section of the report focuses on Programmatic Objective 1 (DOTS expansion) and the main four indicators, which are fairly measurable and presented in TBCTA documents.

Programmatic Objectives 2 (capacity building) and 6 (technical assistance) are discussed in section III.A., and Programmatic Objectives 3 (primary health care) and 4 (HIV/AIDS and multi-drug resistant TB) are discussed in section III.B.

II.B. Progress

Preliminary results and projections, and plans for 2004–2005 by country are presented in Table 2.¹⁴ Data in the table are largely taken from annual WHO global TB reports.¹⁵

II.B.1. Selection of countries participating in TBCTA

TBCTA has not been able to choose the countries that use its services from among the 22 high-burden countries. USAID Missions have made the choice of providing Mission funds to TBCTA to carry out country programs, normally after accepting initial “advocacy visits” that were proposed by TBCTA. In addition, USAID does not have a Mission in several of the high-burden countries.

TBCTA presently carries out national-level activities in 13 countries, with Ghana being a very recent addition as a 14th country. Seven of the countries are among the 22 high-burden countries

¹³ Project Proposal, pp. 21–24.

¹⁴ Updated from the draft annual report October 2002–September 2003, pp.18–19. Note that the last year in the table, 2003, shows cases notified during 2002 and result of treatment of cases notified during 2001.

¹⁵ WHO Global TB Report 2004 (draft tables only).

on the priority list of the Stop TB Partnership: Brazil, Cambodia, Indonesia, D.R. Congo, Mozambique, Nigeria, and South Africa. USAID is providing country-level support, outside the TBCTA mechanism, to another 9 of the 22 countries: Afghanistan, Bangladesh, Ethiopia, India, Kenya, Pakistan, Philippines, Russia, and Uganda. The six high-burden countries currently not receiving USAID support for TB control are Burma, China, and Zimbabwe (all due to political restrictions), and Tanzania, Thailand, and Vietnam.

Criteria for including countries in TBCTA were as follows: high burden of TB, interest from the USAID Mission, interest from the country itself, and compatibility with USAID interests. Some countries were ineligible for political reasons (Burma, China, and Zimbabwe). One limitation to including more countries is lack of interest by USAID Missions. (Following initial TBCTA advocacy visits, USAID/Uganda decided not to use TBCTA and has instead used its already-existing technical and financial resources for TB activities; in the Philippines, the USAID Mission elected not to use TBCTA and has instead contracted with a U.S. private consulting firm.)

TBCTA has had an impact beyond the 14 countries where it has received Mission funding because national TB program personnel from many other countries have attended the international and regional training courses sponsored by TBCTA. Also, the individual TBCTA partners (e.g., KNCV, WHO, and the UNION) are active in many non-USAID high-burden countries using other donor funding. The coalition, fostered by USAID's funds, has provided the environment for the interchange of experiences and "lessons learned" from all of these countries.

All of the key TB experts interviewed by the evaluation team, including the DOTS Expansion Working Group, indicated that the selection of TBCTA countries was adequate.

Table 2. Main Indicators in TBCTA Countries 2001–2003

Country	Medium-Term Development Plans ^a			Drug Resistance Surveys				Population Coverage in DOTS Areas ^c				Case Detection Rate and Treatment Success in DOTS Areas ^d			
				Performed ^b		Planned					Expected		Expectation		
	2001	2002	2003	Previous	2001	2002	2004–05	2001	2002	2003	2005	2001	2002	2003	2005
Brazil	+	+	+	1996	–	–	+	7%	32%	25%		8–89	8–73	10–67	
Dominican Republic	–	–	+	1995	–	–	?	7%	10%	40%	100%	6–81	10–79	43–85	70–85
Egypt			+			+		NA	NA	100%	100%	NA	NA	53–82	65/70–85
El Salvador	–	–	+		–	+		94%	100%	100%		56–78	57–79	57–88	
Haiti	+	–	–		–	–	?	68%	49%	45%		49–70	48–73	55–75	
Cambodia	+	+	+		+	–		99%	100%	100%	100%	56–93	52–91	60–92	70–90
Indonesia	–	+	+		–	–	+	98%	98%	98%	100%	19–50	20–87	27–86	60/65–85
D.R. Congo	+	+	+	1999	–	–	+	70%	70%	70%		60–69	67–78	68–77	
Malawi	–	–	+		–	–	+	100%	100%	100%	100%	42–71	41–73	36–70	50–75/80
Mozambique			+	1999			+	NA	NA	45%	?	NA	NA	58–77	?
Nigeria			+				?	NA	NA	55%		NA	NA	9–79	
Senegal	–	+	+		–	–	+	100%	100%	100%		?	59–52	54–53	
South Africa	–	+	+		–	+		77%	77%	98%		77–60	84–66	108–65	

a (–) Indicates plan not in place or survey not performed; (+) indicates plan in place or survey performed; (?) indicates unknown. Source: Information from national TB programs, USAID country offices, TBCTA partners, or the PMU.

b (–) Indicates plan not in place or survey not performed; (+) indicates plan in place or survey performed; (?) indicates unknown. Source: WHO Stop TB Department.

c Percent of population covered by DOTS as of December 31. Source: PMU. Projections for 2005 made by KNCV.

d New smear-positive cases registered in 2000, 2001, and 2002 as percent of estimated cases (case detection rate) and treatment success rate in patients registered in 1999, 2000, and 2001. Source: PMU, based on WHO data for the annual WHO Report of Global Tuberculosis Control. Expectation for 2005 estimates by KNCV.

II.B.2. National mid-term development plans

Mid-term development plans have been designed for nationwide DOTS implementation in ten countries. These development plans were often the first step in TBCTA involvement. In many cases plans were developed through a process that promoted better coordination between the partners, because plans needed to include all national treatment plan activities being supported by different donors. Mid-term development plans have also been useful because their development is a requirement for support from the Global Fund to Fight AIDS, Tuberculosis and Malaria. Egypt and Mozambique have recently developed multiyear strategic plans that fulfill a similar role, though it is unclear whether such plans exist in Haiti. Conclusion: The objective has been achieved in 12 out of 13 countries.

II.B.3. Drug resistance surveys

TBCTA is focusing on preventing multi-drug resistant TB through effective DOTS programs. TBCTA therefore decided to support the WHO/UNION Global Drug Resistance Survey Project, which receives funding from a variety of sources. Thus far, four of the TBCTA countries (Cambodia, Egypt, El Salvador, and South Africa) have carried out drug resistance surveys since 2001, although the funding has not always been from TBCTA. The main limiting factor to including more countries is a lack of reference laboratories of acceptable proficiency. The WHO/UNION Global Drug Resistance Survey Project staff expects to improve the performance of national reference laboratories in 2004–2005 in five additional TBCTA countries: Brazil, D.R. Congo, Indonesia, Malawi, and Mozambique.¹⁶ Conclusion: There has been progress in implementing drug-resistance surveys, but it has been slow.

II.B.4. Population coverage of DOTS

DOTS coverage is defined as the proportion of the population living in areas where DOTS is implemented. The amount or level of coverage has evolved differently in TBCTA countries. There has been a rapid increase in population coverage in some countries, such as the Dominican Republic, where the USAID Mission reports a “substantial” TBCTA impact on DOTS expansion. In others (Cambodia, El Salvador, Malawi, and Senegal), population coverage was reported to be almost 100 percent from the start of the project, and the impact has been on improved quality (i.e., case detection and success rates). In Indonesia, DOTS was proclaimed as having been officially implemented in all districts by the late 1990s, but implementation was weak. Improvements are therefore not measured in DOTS coverage, but in detection rate (see below).

¹⁶ The third report of the WHO/UNION Drug Resistance Survey Project was to have been published in March 2004, and will provide additional detailed information on this issue.

The main limitation to increased DOTS coverage in many countries is limited access to general health services, which is beyond the scope of TBCTA to improve. The indicator is not defined the same way in all countries, and is difficult to measure.¹⁷

In conclusion, considerable progress has been made in most countries and provinces that received TBCTA support that had not already reported 100 percent coverage at the start of the program.

II.B.5. Countries reaching 70 percent case detection rate and 85 percent success rate

This indicator consists of two different components that will be assessed separately.

Seventy percent detection rate within a DOTS area. Detection rate is the percentage of estimated TB cases within the DOTS area covered by the project, as estimated by WHO for each country, based on tuberculin surveys and other data. There has been a considerable increase in some countries, such as the Dominican Republic, Indonesia, and South Africa. In Indonesia, the case detection rate in Central Java increased from 13 percent in 2001, to 27 percent in 2003, and in East Java, from 12 percent to 30 percent over that period.

In D.R. Congo, TBCTA is supporting the provinces of Kasai Occidental and Kasai Oriental Sud, where the number of new smear-positive TB cases increased by 71 percent and 49 percent, respectively, from 2001 to 2002. This cannot be translated into a case detection rate, but it clearly indicates considerable progress in case finding. In some countries, many patients receive treatment, but they do so outside the national tuberculosis program. In these countries, the case detection rate would increase considerably if patients were referred to the national program or other TB control activities that fulfill the DOTS criteria. In other countries, such as Brazil, many TB cases are missed by the national reporting system. Improvements to the reporting system would increase the case detection rate and lead to rapid improvement in this performance indicator.

In Brazil, DOTS coverage increased from 7 percent in 2000, to 32 percent at the end of 2002, according to the national TB program.¹⁸ As discussed elsewhere in this report, the definition of

¹⁷ The definition of DOTS population coverage is problematic. A WHO working group is currently revising the definitions by focusing on population. Another indicator that may better express achievements in TBCTA would be health facility coverage (the proportion of facilities with the minimum resources and equipment within national TB program plans to provide DOTS that actually provide this service). It would be reasonable to expect 100 percent health facility coverage within a few years, and then the real population access to DOTS would depend on health system coverage. The WHO global report survey inquires how many health facilities/administrative units (districts) there are and how many of these are implementing DOTS, but it does not calculate the percentage. This indicator requires further fine-tuning of the role of outreach services, NGOs, and the private sector in a national TB plan.

¹⁸ Garrett, Denise. *Epidemiologia do tuberculose no Brasil*.

DOTS in Brazil may be different from usual WHO definitions, especially regarding reporting, DOTS, and treatment regimens.¹⁹

High population coverage and a low detection rate indicate that public health services are not sufficiently capturing patients with TB (this occurs in Egypt and Indonesia). Mozambique has an 85 percent health system coverage rate at the district level, but only 50 percent population coverage by general health services, and the case detection rate is estimated to be 58 percent. This indicator is also much debated in the global TB community.²⁰

In conclusion, there has been a considerable increase in the case detection rate in several countries (or provinces covered by the project), but thus far, only South Africa has achieved the goal of 70 percent.

Eighty-five percent treatment success within DOTS areas. Treatment success of 85 percent means that 85 percent of new smear-positive cases were successfully treated.²¹ Three of the TBCTA countries improved their success rate to reach the target by 2003 (Dominican Republic, El Salvador, and Indonesia), whereas Cambodia had already reached that target. TBCTA has contributed to better quality data.

Data quality is closely linked to the capacity of central and provincial staff to make supervisory visits to provinces and districts, and to the quality of these visits. The TBCTA has trained many staff members in such skills (probably in all TBCTA-supported countries) and has increased the capacity in several settings by adding staff, transportation, and other elements. D.R. Congo and Indonesia offer good examples of this. TBCTA support has included training for staff, regular supervisory visits (transport means and per diem), chasing defaults, and expansion of facilities so they are more accessible to patients. Success rates have improved in some parts of D.R. Congo (from less than 40 percent in 2000, to near 78 percent in 2001, in Kasai Occidental; from 50 percent to 72 percent in Maniema; and from less than 40 percent to 75 percent in Kasai Oriental

¹⁹ A recent SINAN [in Brazil, diseases of mandatory notification] report showed 30% of cases not reported.

²⁰ It is difficult to estimate what constitutes 100% of cases. The rate appears to be far too low in Malawi, which for many years has had significant health system coverage and a good national TB plan. A case detection rate of only 50% in Egypt is also surprising. The indicator could be used to assess trends over time, but in Indonesia, the incidence corresponding to 100% has been changed each year. This indicator should not be used at regional/provincial levels.

²¹ WHO/UNION defines treatment success as the sum of: completed treatment with negative sputum smear microscopy at the end (usually called “cured”), and completed treatment without the last smear control at the end (usually called “completed”). WHO usually sets the goal at an 85% success rate, but the evaluation team noticed that in some TBCTA documents and national programs the 85% cure rate was used.

Sud). In Central Java, Indonesia, the high success rate of 85 percent to 90 percent has been maintained despite a rapid increase in the number of cases.

Low success rates are caused by high deaths rates, particularly due to AIDS (20 percent in Malawi), delay in starting treatment, (or both), by high rates of default (found in many programs), and by missing data (as in Senegal). Death rates related to HIV/AIDS may be reduced to some extent by increased use of antiretroviral drugs, but it may be hard to reach the targets in countries with high HIV sero-prevalence rates. Better access to and quality of health services that provide DOTS should both reduce deaths caused by delay and reduce default rates. Because WHO statistics include patients with missing results in the denominator, in some countries, more complete reporting would quickly improve the success rate.

In countries where little TB treatment takes place outside the national treatment plan, the best balance has to be found between the speed of DOTS expansion from a pilot stage to cover the entire region or country and the success rate. If the speed of DOTS expansion occurs too quickly, the success rate may be too low, and it could result in an increase in the risk of development of drug-resistant strains of TB.

Conclusion. Four countries have reached the 85 percent target of treatment success (Cambodia, Dominican Republic, El Salvador, and Indonesia), whereas another four are near this target (i.e., they have reached a treatment success rate of 75 percent or more). Only South Africa has reached the 70 percent case detection target, but KNCV projects that Cambodia, Dominican Republic, and perhaps Egypt as well, will reach this target by 2005. Therefore, none of the countries has reached the combined targets of 70 percent and 85 percent so far. In countries with high HIV sero-prevalence rates (South Africa, Malawi, and perhaps Mozambique), it may be unreasonable to expect that the treatment success target will be met.

II.B.6. Process indicators

Unfortunately, TBCTA has not yet begun to report country-level progress using the 14 process indicators identified in the project proposal.²² It is not clear whether TBCTA partners have baseline information to measure progress against these indicators, nor how determined TBCTA leadership is to use these indicators to measure project success. On the basis of the evaluation team's visits and the questionnaire results, it is the team's impression that good progress has been made in several countries using the TBCTA model with the following indicators:

- Laboratory quality (functional network of laboratory services, staff trained, microscopes distributed, availability of supplies, more patients diagnosed)

²² Project proposal, page 20.

- Effectiveness of national TB programs (trained staff, national manual in place, strong donor coordination, increased national funding for TB, improved communications and reporting capacity)
- Improved monitoring and supervision (staff trained in supervision, increased availability of transportation and per diem, additional staff)
- Improved and consistent drug supply and management, improved quality controls on drugs and drug use (GDF- and Global Fund–financed drugs available, trained managers, improved procurement and drug management system [often with RPM+ assistance])
- Improved staff quality (via training for provincial and district staff in strategic planning, program management, logistics and drug management, supervision, DOTS diagnosis and treatment, etc.)

Unlike most USAID-funded projects of this magnitude, the Project Management Unit does not have a monitoring and evaluation specialist with the responsibility to establish and ensure the application of the TBCTA monitoring and evaluation system.

II.C. Appropriateness of TBCTA Indicators

TBCTA generally follows indicators that are well established in the TB community and which are useful for assessing the impact of interventions in national TB control. Indicators such as having in place a medium-term development plan and a drug resistance survey are easy to measure. The remaining indicators are all problematic, but this is a problem of global TB control, and is not related to the TBCTA. Efforts are currently under way with the involvement of most of the TBCTA partners to refine the indicators used in TB control. In addition, the TBCTA partners need to finalize and carefully measure the achievement of process indicators.

In general, TB control has the objective of reducing incidence (morbidity) and mortality of TB. These indicators are, however, not expected to change in the few years of the project. In fact, the notification rate would be expected to increase during the first years because of better case finding and more complete reporting. Mortality data are usually of low quality because they are based on vital statistics, whereas fatality (i.e., the percentage of notified patient cases who die before the end of the treatment) measured by cohort analysis of treatment result should provide better-quality data.

The TBCTA indicators are logically constructed and do provide a good framework for evaluating program success. Country-level improvements in output-level indicators are possible, even in the short time frame of a five-year project. For example, in Indonesia, significant improvements in the large TBCTA target provinces of Central and East Java are apparent from local data after two years of concerted activity. According to Indonesia’s national treatment plan director, significant improvements in these two large provinces, which have a combined population total of more than 60 million, may push Indonesia’s national indicators above WHO targets for treatment success by

2005. The more sensitive indicator is the cure rate, whereas the detection rate might not improve as the DOTS program expands.²³ The “access” indicator (“availability of DOTS strategy,” or, effectively, the availability of DOTS services) requires careful definition. While access is normally defined as the availability of a health service center within a specified radius, a more precise definition would measure access to a health service center *that has the resources to provide DOTS treatment*.

Attribution. In Table 2, the column of indicators for case detection rate and treatment success by country reflects activities that occurred in the past. The 2003 column reflects the number of patients notified in 2002, and the result of treatment of patients who were notified during 2001. Because TBCTA implementation at the country level took place primarily from 2003 onward, it would affect the case finding only from 2003 (measurable from 2004), and the treatment result of the same patients who were notified in 2003, should be available in 2005. Therefore, it is too early to clearly see the impact of TBCTA on these indicators.

The level of support has varied greatly between countries, so that the impact of TBCTA will be variable and difficult to assess. In some countries, such as D.R. Congo and Indonesia, much of the TBCTA support takes place only in specific provinces or districts. The evaluation team’s assessment therefore focuses on these areas. In some countries, TBCTA supports only one or only a few components of the national treatment plan, such as HIV and TB (in Malawi), monitoring and evaluation (in South Africa), human resource development, and operational research; therefore, the impact of TBCTA on overall indicators is hard to measure.

A few questions of attribution arise when using the TBCTA output indicators. In most cases, given the pervasiveness of TBCTA partner international activities prior to the cooperative agreement, a strategic plan or a drug resistance survey, if not carried out specifically by TBCTA during the project period, probably exists at least in part based on earlier work of a TBCTA partner. USAID Missions reported that TBCTA was part of developing or revising a national TB strategy with only a few exceptions.

Attribution questions are more likely to arise in countries where USAID funds for TB are limited and where the TBCTA scope of work is focused at central-level activities rather than at field-level activities. The very systematic, stepwise assistance provided by TBCTA typically sets the necessary framework (planning, trained human resources, and laboratory capacity) to achieve success via programs funded by the Global Fund to Fight AIDS, Tuberculosis and Malaria or by other donors.

²³ Case detection is based on a global estimate of 135 cases per 100,000 people. The WHO accepts that the number of actual cases may be significantly higher or lower in any location.

III. Programmatic Objectives: Progress and Issues

III.A. Capacity Building and Technical Objectives

III.A.1. Meeting demands for technical assistance

The primary objective of TBCTA is to assist USAID's Global Bureau Office of Population, Health, and Nutrition and USAID Missions and their local public, private, NGO, and donor partners in the furtherance of USAID's infectious disease strategy as it relates to tuberculosis by providing policy and programmatic guidance, as well as administrative, managerial, and technical assistance.²⁴

From the start of the TBCTA, the partners first provided technical assistance through advocacy visits to review national treatment plans, to assess local needs, and to sensitize USAID Mission staff to use the TBCTA to support national TB plans. In order to evaluate USAID activities in TB control, USAID staff visited 15 countries during the first two years,²⁵ and in 2002, staff visited seven countries in Eastern Europe.²⁶ During Year 3, staff made additional visits to Egypt (for advocacy work), Nigeria (for advocacy and review work), India, Tanzania, and Uganda (to assess the regional center for quality health care).

During the first two years, 11 USAID Missions pledged funds for TB control through TBCTA,²⁷ whereas two more Missions pledged funds at the end of Year 3.²⁸ TBCTA partners visited all these countries to provide technical assistance in support of DOTS implementation and to monitor activities that were described in country plans, usually mid-term development plans.

The traditional UNION/KNCV/WHO approach to providing technical assistance to national TB programs has been to visit countries on a half-yearly basis; this approach was developed in the 1980s within the Mutual Assistance Program of the UNION. Often, in the early years, an expatriate physician worked on national TB programs at the central or provincial levels. This

²⁴ Project Proposal, p. 12.

²⁵ Brazil, Cambodia, D.R. Congo, Dominican Republic, Egypt, El Salvador, Ethiopia, Haiti, Indonesia, Kenya, Malawi, Philippines, Senegal, Uganda, and South Africa.

²⁶ Estonia, Kazakhstan, Kosovo, Latvia, Russia, Ukraine, and Uzbekistan. This evaluation was not considered a success. The reports from these Eastern European visits have been much delayed, partly because KNCV consultants were not available on a timely basis, because the focus was not clear enough (USAID expected not only technical issues but also advocacy to be addressed), and because of problems associated with the writing and editing processes.

²⁷ Brazil, Cambodia, D.R. Congo, Dominican Republic, El Salvador, Haiti, Indonesia, Malawi, Mozambique, Senegal, and South Africa.

²⁸ Egypt and Nigeria.

approach was successful in a number of model countries and was part of the development of the DOTS strategy.

The partners (the UNION, KNCV, and WHO) in the TBCTA project that provided technical assistance to national TB programs in the past have continued to do so, usually every six months. The quality of the technical assistance was reported to be excellent.

The demand by USAID Missions for technical assistance has, however, been greater than expected by the partners. Though some countries needed more frequent visits, the capacity of the TBCTA partners to provide it has been limited.

The global need for technical assistance has increased since the TBCTA was started, partly because the Global Fund to Fight AIDS, Tuberculosis and Malaria has offered funding for TB program implementation; often, however, the Global Fund proposals or implementation plans have not included funding for technical assistance. Most of the countries receiving TBCTA support have received or have applied for support from the Global Fund and the GDF. TBCTA partners have offered direct technical assistance in the application process to some countries (e.g., Dominican Republic, El Salvador, Indonesia), which is often a demanding process, whereas in other countries, TBCTA has created conditions that have strengthened the application, such as mid-term development plans, better information systems, supervision and monitoring, drug management, and DOTS expansion.

Technical assistance has also been increasingly needed to address specific topics such as program management, drug management, laboratory network, training, and advocacy, and in these instances, additional people who could provide this specialized assistance have been brought in. This has happened more often, but with significant delays.

TBCTA technical assistance has included the strengthening of laboratory services for drug-resistance testing by funding WHO to expand the WHO/UNION Global Drug Resistance Survey Project. This has included setting up a network of supranational and national laboratories that perform drug-resistance testing with acceptable quality.²⁹ Training courses on standardization of drug resistance methods have been held for francophone Africa and in countries of the former Soviet Union.

Drug management has been a weak point in many national TB programs. TBCTA has promoted the strengthening of this component, usually through Management Sciences for Health, which has offered advice on drug management in several countries, often via USAID's RPM+ Project.

²⁹ Draft third report, planned for publication in April 2004.

Because support in several countries has included direct involvement in program implementation, such as procurement, the need for onsite follow-up has become evident. At the same time, as part of a decentralization process, several countries have been reducing their central and provincial staffs and the responsibilities of their TB programs so that their management capacity is now weak. In particular, the provincial staffing levels have been dramatically reduced in Brazil and Indonesia in recent years. In response, TBCTA partners have recently contracted additional, full-time staff to offer on-site technical assistance to some countries, in addition to the periodic follow-up visits by the technical adviser.

TBCTA has successfully provided or financed this long-term, local technical assistance in several countries as detailed below, but the process has often been lengthy, especially in El Salvador and Mozambique.

In Indonesia, after many requests from the USAID Mission, KNCV hired its own office staff with a full-time resident director.³⁰ To facilitate collaboration, the KNCV office is located in the same corridor as the national TB program office, where WHO also has some office space. KNCV also hired medical and support staff for Central Java and East Java, where TBCTA is providing support. These staff people are also co-located with provincial TB program staff.

In Brazil, a technical specialist from CDC was contracted in June 2002 to coordinate Ministry of Health TB research activities³¹ and to provide epidemiological support to the national TB program in Brasilia. A WHO TB medical officer from the Pan American Health Organization was contracted for 11 months, beginning in February 2004, to provide technical assistance on tuberculosis and to assist Brazil with its TBCTA contract.

Two years after the initial TBCTA assessment, El Salvador hired the former manager of the national TB program in Venezuela to support its national TB program.³² In Senegal, two physicians were hired as WHO program officers in 2003 to strengthen the central unit of that country's national TB program with the task of supervising some regions.

In Nigeria, WHO contracted one staff member at the central level and will also contract three professional officers to work in three newly established zonal offices. In Mozambique, the national TB program asked TBCTA to include extra staff in its national TB program central unit as part of the TBCTA HIV/TB project. A medical doctor has been identified for the position, but there is still discussion about his terms of reference.

³⁰ The staff consists of a medical officer as project manager, a program coordinator, an accountant, an office manager, an office assistant, and a driver.

³¹ This person was initially contracted by KNCV for a six-month period. Her contract was subsequently continued by the UNION.

³² WHO points out that recruitment took only four months after the subagreement was signed for the TBCTA program in El Salvador.

A similar development is the Intensified Support Action Countries (ISAC) plan,³³ which was initiated in early 2004 by the DOTS Expansion Working Group of the Stop TB Partnership. ISAC focuses on ensuring that Global Fund grants are well used and encourages the hiring of additional, long-term staff or consultants to provide technical assistance (often under WHO auspices) at the national and provincial levels in some key countries. ISAC is not part of TBCTA activities, but it involves several TBCTA partners and is relevant for the discussion of how to strengthen technical capacity at the country level. These additional temporary staff may be important for speeding up DOTS expansion; however, their “consultant” salaries will be considerably higher than those of health ministry staff. The duration of ISAC is unknown, and it is uncertain to what extent the ministries of health can absorb these persons after so-called “emergency” donor funding is terminated. Therefore, the TBCTA partners should assist in ensuring that the initiative is well planned and that any TBCTA-supplied long-term technical assistance avoids the roller-coaster results of other short-term donor health programs, such as those that address child survival issues.

The global demand for technical assistance in TB control is also increasing now because of the HIV/AIDS-related 3×5 Initiative and the U.S. President’s Emergency Plan for AIDS Relief, for which patients with TB are considered key for receiving antiretroviral treatment.

Has the technical assistance provided by the TBCTA been sufficient? Where TBCTA has provided senior technical assistance in response to requests by a national TB plan or a USAID Mission, the quality, without exception, has reportedly been excellent. Examples of this have occurred in the Dominican Republic, D.R. Congo, Haiti, Indonesia, Malawi, Mozambique, Senegal, and South Africa. This is indeed a major accomplishment.

Assistance to some other programs (particularly those in Cambodia and Eastern Europe), however, has been delayed because senior TBCTA consultants are unavailable to perform the work. One USAID Mission, for example, wanted frequent visits by a high-level consultant, whereas the national TB program manager wanted fewer but longer visits so that the consultant could visit provinces. There is a limit to how intensive the technical assistance should be in order to speed up DOTS expansion in the long run. One main task of the TBCTA project is to assist a national TB program to expand DOTS nationwide by first setting up the basic conditions so that the national TB program can operate in the long run. The more TBCTA becomes an implementing agency, the more difficult it may be to ensure that national government programs can continue.

D.R. Congo has a well-functioning national TB program, even though health services in the provinces are run by a variety of foreign NGOs. TBCTA assistance, primarily through the UNION, has facilitated good coordination between the actors, and GDF support has strengthened

³³ ISAC note, January 2004.

the role of the national TB program by being responsible for drug distribution. The NGOs are supporting the salaries of the TB program staff at the provincial and district levels. Intense training and supervisory visits have resulted in fairly complete data on case finding and treatment outcome.

The half-yearly travel reports by TBCTA consultants are key instruments for monitoring the progress of the national TB program in many countries and are generally quite useful.

A major strength of global TB control efforts is the general consensus regarding the DOTS strategy. The evaluation team was surprised that the sites they visited in Brazil and Indonesia did not comply with WHO and UNION recommendations (i.e., that treatment should be directly observed by people other than family members). In Brazil, except in a few pilot projects, patients receive weekly treatment without supervision between visits. The concern is that Brazil's national TB program treatment regimens (both for new cases and re-treatment) are inadequate, and its information system is still incomplete.³⁴ In Indonesia, a support person, often a family member, was identified to help the patient adhere to the drug regimen, but without observing the actual drug intake. This system has been shown to be effective in the KNCV-supported program in Sulawesi, but with rapid expansion to the rest of the country, it is not certain that similar results will be achieved.

The WHO review of Indonesia's national TB program in early 2003 recommended that operational research be conducted to assess and document the efficacy of treatment observation by family members. The impression of the TBCTA evaluation team was, however, that the main problem associated with TB control in Central and East Java was that most patients were not receiving treatment as part of the national TB program, and the challenge was how to attract these patients. It may not be helpful to establish DOTS by non-family members as a policy if most patients are not present. The most constructive approach could be the introduction of DOTS by nonfamily members as an effort to improve patient care (i.e., as one of the interventions to attract more patients).

Increasing capacity for technical assistance. TBCTA was started because there were too few high-level TB technical experts in the world who could plan, implement, and evaluate national TB programs. For decades there had been little focus on TB control, and only a few organizations provided technical support to national TB programs, namely, the UNION through its Mutual Assistance program, European NGOs such as KNCV, two Norwegian NGOs, and the Swiss Lung Association. To meet the expanded needs, TBCTA set an objective to "expand the capacity for providing high quality technical assistance worldwide by organizing training for and access to

³⁴ Suggestions for strengthening Brazil's national TB program were raised in the mid-2003 review by Rodolfo Rodriguez et al., and in 1999, Mark Perkins and Paula Fujiwara performed an institutional evaluation of the national reference laboratory.

qualified consultants.”³⁵ Many of the expatriate staff members who worked for European NGOs were successfully recruited, but the demand for consultants is still greater than the supply.

According to the project proposal, TBCTA should train 45 international consultants.³⁶ Only seven have begun formal training with KNCV, WHO, and the UNION. A program by the North American chapter of the UNION and ATS to encourage American TB specialists to enter the field presently involves 25 medical personnel. Approximately 20 potential consultants received training at consultant training courses in May and November 2003, in Sondalo, Italy.

TBCTA started training promising junior consultants to become general TB consultants only in 2003. KNCV began training one person from a low-prevalence country in June 2003, and another from a high-prevalence country in October 2003. Both consultants have devised personal, 18-month development plans using a training tool developed by the Task Force for Training (TFT).³⁷ Their plans include regional TB training courses, specialized courses in operations research, and participation in missions to three different countries.

The UNION started training three junior consultants from high-prevalence countries in early 2004, one each from francophone Africa, anglophone Africa, and India. Each has been assigned to mentor one of the UNION’s senior consultants. Their training will last 18 months, is similar to that of the KNCV model, and will include a special focus on TB and HIV.

In August 2003, WHO began an 11-month training program with a focus on human resources development for one person from a low-prevalence country. In addition, WHO has identified a person from Eastern Europe who will be trained in its European office for 11 months, beginning in March 2004.

The TFT guidelines for preparing a personal TB consultant training plan explain that a competent consultant needs knowledge, skills, and attitudes that cannot be acquired in one or more training courses, and encourage field training with an experienced consultant.³⁸ The level of training may be different for full-time consultants who work for KNCV, the UNION, or WHO, from that of individuals who perform consultancies just once or twice a year. The guidelines suggest that a consultant’s experience must be diverse and should include general DOTS expansion, human resource development, advocacy, and laboratory practices.

It is too early to draw any conclusions about the training of junior consultants. The training undoubtedly requires a wide range of experiences; however, recruiting consultants should not be

³⁵ Project Proposal, pp. 12–13.

³⁶ Project Proposal, p.20.

³⁷ Guidelines on how to prepare a personal training plan for future TB consultants for TBCTA, 77 pp. Includes an inventory of relevant courses and materials.

³⁸ Guidelines on how to prepare a personal training plan for future TB consultants for TBCTA, p.7.

a difficult task. Several national TB programs have many skilled people who could be recruited and trained to perform the work part-time in other countries.

In more general terms, in order to meet the rapidly expanding program needs in both TB and HIV/AIDS, in the evaluation team's view, for a variety of reasons, the top priority should be the training of consultants from developing countries. It is more cost-effective, more such consultants are available, and their expertise is more acceptable by staff in other developing countries. In developed countries, over the long term, training for consultants should probably occur at health training institutions because it is a means for strengthening preventive medicine and public health in general, and because training in epidemiology and related sciences in these disease-specific fields is more readily available. In developing countries, the training should also occur through field-oriented and field-based programs for greater efficiency and cost-effectiveness.

III.A.2. Develop institutional and technical capacity for TB control in target countries: Training/human resource development

The second programmatic objective of TBCTA is to develop institutional and technical capacity for TB control in target countries. Activities include: (1) staff training in general management, logistics management, technical capacity, supervision, and operational research; (2) support for administration, general management, logistics management, supervision, and operational research; (3) development of standardized monitoring (results) and quality control systems in national programs; and (4) engagement of private practitioners and community organizations in TB control. Activities consist of training courses, workshops, intracountry and intercountry meetings, program review missions, and consensus-building meetings.³⁹ The project proposal describes potential support in capacity building, and organizational and human resource development,⁴⁰ but there is a high degree of overlap in activities.

The sub-intermediate results⁴¹ include quantitative targets for staff capacity: (1) 125 staff in training at an international course; (2) 1,550 staff in training at the national level; and (3) 45 professionals trained as international consultants.

It is difficult to define useful indicators for progress in capacity building. The end result should probably be sufficient staff in place with adequate training, supervision, and follow-up to carry out the tasks of a national TB program at all levels. The result should be an improvement in case detection and treatment success, the main TB program indicators. TFT is currently defining indicators in the position paper.⁴²

³⁹ Project Proposal, pp. 12–13.

⁴⁰ Project Proposal, p. 16.

⁴¹ Project Proposal, p. 20.

Staff training. TFT consists of training specialists from each TBCTA partner. Its first meeting occurred in September 2001, and it has met quarterly since then. The purpose of TFT is to support national TB programs, as well as academic and medical institutions, to strengthen their human resources to help reach global DOTS targets. Specific purposes are: (1) to enhance the capacity of program managers at central, intermediate, and district levels to adapt strategies for human resource development to the needs and goals of national TB programs; (2) to enhance the management capacity at central, intermediate, and district levels; (3) to strengthen the capacity of peripheral health workers in TB through field-oriented training; (4) to strengthen the capacity of respiratory clinicians and university professors in the public health aspects of TB control; and (5) train new consultants from developing and developed countries for national and regional work.⁴³

In May 2003, the TBCTA board noted that the shortage of trained staff at all levels is a major factor limiting DOTS expansion, that human resources development and training were an extremely important TBCTA activity, and that TFT would not be able to meet USAID's increasing needs. The Board of Directors decided that a full-time person needed to be appointed to support the efforts of the TFT and that TFT should be represented in all board meetings. The board noted that more attention should be given to national programs and that TFT's terms of reference were not clear enough to give TFT adequate direction.

TFT, with the help of the PMU, developed a draft human resource development position paper⁴⁴ that includes indicators; this paper is still under discussion.

TBCTA is debating whether TFT or the lead TBCTA partner in a particular country is responsible for meeting the increasing demand for short-term technical assistance. TFT staff explained that they do not have the capacity to provide country-level technical assistance, however, the full-time human resources development consultant in the PMU could do so if the technical consultants and the countries requested it.

The PMU has contracted a human resource development consultant to accelerate this work and to support the work of TFT. The consultant works in collaboration with TFT, which underlines the need to have consistent PMU follow-up between TFT meetings and to help carry out TFT activities.

It is difficult to quantitatively assess the extent to which TFT has reached its objectives, apart from the number of trained staff. A list of international and regional courses supported by the TBCTA appears in Annex D. In addition, TFT has implemented a lengthy list of valuable activities such as the following:

⁴² *Human resource development for TB control. The roles of the TFT and other players within TBCTA. A position paper (draft).* October 2003 and February 2004. 11 pp.

⁴³ TFT Terms of Reference, December 5, 2001.

- *Review and development of training materials:* A general strategy for human resource development in national TB programs,⁴⁴ a checklist for the human resource development component in national TB programs,⁴⁵ the training coordinators handbook,⁴⁶ training material for health center staff,⁴⁷ participant manual for regional workshops for training focal points,⁴⁸ and guidelines for preparing a personal training plan for future TB consultants for TBCTA.
- *Workshops for TB human resource “focal points” (or sub-directors) from high-burden countries:* These new workshops are designed to encourage systematic human resource planning and training for TB personnel in high-burden countries. Workshops were held in The Hague, in November 2002, with 13 participants, mainly from Africa, and in Bangkok, in September 2003, with 20 participants from South and Southeast Asia. In both workshops participants designed a needs assessment for each country, and country-specific human resource work plans. USAID staff participated in both workshops. A follow-up workshop for the participants from Africa was held in November 2003, in Addis Ababa to evaluate the execution of the work plans that participants had developed during the first workshop. The national TB program manager and the human resource focal points were invited to the follow-up workshop.
- A review of training and human resource development proposals submitted to TBCTA for funding, and regional training courses.

TBCTA partners are organizing regional training courses targeted to managers of national, regional, and provincial programs. These courses are held once or twice a year in Arusha, Tanzania (for English speakers in Africa), in Cotonou, Benin (for French speakers in Africa), in Managua, Nicaragua (for Spanish speakers in Latin America), in Hanoi/Ho Chi Minh City (for English speakers in Asian countries) and in Warsaw, Poland (for English and Russian speakers). These courses are normally funded from a number of sources.

TBCTA funding is predictable and has led to a greater participation in courses. TBCTA has also ensured better coordination of training activities and has ensured that key national and provincial staff receive priority enrollment and funding for the training courses they need.

The training courses contribute to a common understanding of how DOTS should be implemented, and to networking and exchanges. The outcome of the courses has been assessed

⁴⁴ *Training for better TB control. Human resource development for TB control. A strategic approach within country support.* WHO/CDS/TB/2002.301 13 pp.

⁴⁵ *Checklist for the review of the HRD component of national plans to control tuberculosis.* Draft.

⁴⁶ *The training coordinator’s handbook.* Chapters 1–6, November 2002.

⁴⁷ *WHO training modules for health center staff.* WHO/CDS/TB2003.314.

⁴⁸ *Participant manual for regional workshops for TB training focal points from high-burden countries.* Bangkok, September 2003.

through post-training questionnaires. The evaluation team discussed the need for a course in Brazil with a curriculum similar to that of the course offered in Managua, particularly for the 26 consultants who may be hired by Brazil's Ministry of Health to support its state TB programs. In other large countries where many provincial staff persons need training, national courses could be adapted for use at the regional level.

WHO has developed material for national-level TB staff and has completed the revision of the first part of its district-level manual. Training manuals for health facility staff have been developed and distributed (see previous page) and a CD-ROM is in preparation.

Through TBCTA, gaps in training have been identified, and new courses have been developed and executed. The UNION took the lead to develop an international training course that focuses mainly on management issues. The first course, titled "International Financial, Logistics and Procurement Management Course for NTP Managers," was held in Jaipur, India, in February 2004.

TBCTA courses on laboratory skills and operational research are described below.

Support for national-level training. Training is a key component in most country plans. To meet national and sub-national training needs, TBCTA has adopted a careful, stepwise approach (most fully in Indonesia and South Africa) that includes national or sub-national training plans, training for master-trainers, development of course materials, training execution, and follow-up supervision. Local training facilities are used when appropriate. This model, most fully applied in Indonesia, will be evaluated there in March 2004, and the results are expected to be valuable to other countries.

It is probably necessary for TFT to be involved at the national level in some countries in order to obtain feedback on how training activities are functioning in practice, perhaps by evaluating its training programs (this is being planned in Indonesia). For example, in Indonesia, training for health center staff was still a limitation to DOTS expansion, and is caused by a lack of trainers. The training for this group would therefore be speeded up.

Operational research. The program document includes operational research as an activity under the programmatic objectives of developing institutional and technical capacity for TB control in target countries, by both staff training in operational research and support for operational research.⁴⁹ Under possible areas of support is "Capacity building, both organizational and human resource development," for which "operations research and quality assurance to improve program delivery, to determine the prevalence of drug resistance and the quality of drugs, to evaluate

⁴⁹ Project Proposal, p. 13.

interventions addressed to special populations with less access to care (e.g., women, scattered or hard to reach populations, prisoners), and to measure program impact.”⁵⁰

The routine information system in the DOTS strategy provides basic data for operational research such as case finding and treatment results. Routine analysis of national TB program data and operational research overlap, whereas the routine information in a national TB program leads to topics for operational research. It is useful to ensure that operational research is closely linked to national TB programs so that the right research questions are raised.

Most national TB programs have operational research in their work plans, and some donors specify a certain budget percentage for that purpose. Most national TB program staff are either too busy, or they have not been trained to do research. Some institutes and universities are doing research, but with limited links to national TB programs.

The UNION has offered training courses in applied epidemiology for several years to participants from high-prevalence countries, using a variety of funding sources. TBCTA has funded such courses in Paris in 2003, Addis Ababa in 2001, and in Latin America in 2002 and 2003.

TBCTA funds some operational research by KNCV in Indonesia and South Africa. In South Africa, using a combination implementation and evaluation study, Stellenbosch University has introduced sputum registers to rural areas around Cape Town. In Johannesburg, one study supports the development, implementation, and evaluation of a new TB education and referral center at Baragwanath Hospital; and another study, started in July 2003, examines TB practices in Baragwanath Hospital and referrals to it from subdistrict clinics in Soweto.

The KNCV research unit visited Indonesia in February and March 2003, and formulated plans for operational research activities.⁵¹ The result is a national TB operational research working group with the objectives to: (1) support operational research in the provinces, (2) build capacity for TB research by actively supporting young researchers, and (3) assess the relevance and quality of research proposals submitted to the national TB program. In early 2004, six research teams were being formed in East and Central Java, and in Yogyakarta, each consisting of four persons, the program staff, and researchers.⁵² In May 2004, these individuals will be trained in the basics of operational research, in developing research proposals, implementing their research, and analyzing the results under the guidance of the TB operational research group and KNCV. The training course is titled “Designing and Conducting Health System Research Projects,” and was developed by the International Development Research Center.

⁵⁰ Project Proposal, p. 16.

⁵¹ Borgdorff, Martien, and Marieke van der Werf. *Report of a mission to Indonesia to support operational research on tuberculosis control, in particular in Central and East Java*. February/March 2003. 31 pp.

⁵² Voskens, Jan. *Summary of progress TBCTA Indonesia 2003*. Draft.

In Brazil, TBCTA is supporting surveys and surveillance of deaths from TB, as well as the personnel costs of a full-time CDC research specialist.

Several TBCTA-supported national TB programs have operational research in their work plans, such as those in El Salvador (an annual risk of infection), Malawi (HIV/TB), Senegal, Egypt, and D.R. Congo.

USAID supports operational research in many countries, often through the CDC's Global AIDS Program, or through universities. In Brazil, for example, USAID supports a DOTS expansion study in Rio de Janeiro and São Paulo through Johns Hopkins University.

Laboratory improvements. Laboratory services are often a weak link in TB control programs. TBCTA has supported creating better laboratory networks and better use of quality control measures for smear microscopy, which is the basis for TB diagnosis. A regional training course in TB laboratory network management was held in Bangkok, Thailand, in January 2003. TBCTA also supported a course in laboratory management in Warsaw, Poland, in 2002 and in 2003. In Surabaya, Indonesia, the reference laboratory is being upgraded and its staff members are receiving training and workshops in quality control, and in equipment use and maintenance.

TBCTA has been able to procure a large number of microscopes and reagents as part of a broader program to strengthen laboratory quality: ten light microscopes and one fluorescent microscope for Malawi; 35 microscopes for Haiti; 218 binocular Olympus (CH20) microscopes for Surabaya, Indonesia; and ten binocular Olympus microscopes and one water distiller for D.R. Congo.

In South Africa, the UNION has helped to define TB laboratory activities and staff responsibilities in the newly created National Health Laboratory Services. In D.R. Congo, WHO has aided the purchase of equipment for seven regional laboratories, sponsored training for technicians in the national reference laboratory, and supplied transportation and per diem costs for TB laboratory supervision services in seven provinces.

Planned activities include the following: in Senegal, funds to purchase equipment for the national TB reference laboratory and to rehabilitate a regional laboratory; in Egypt, overseas training courses for four laboratory staff each year; in Nigeria, laboratory equipment; in the Dominican Republic, laboratory training; in El Salvador, strengthening the national laboratory network; and in Brazil, a drug resistance survey. In general, most countries need stronger microscopy networks.

Technical assistance, training, and equipment have been made available to reference laboratories to ensure sufficient proficiency for participation in WHO/UNION drug-resistance surveys in Brazil, D.R. Congo, Indonesia, and South Africa. Training courses on drug susceptibility test standardization methods have been conducted in countries of the former Soviet Union.

III.A.3. Supervision, monitoring, and information systems

A key invention in the new DOTS strategy is the TB register. TB registers are managed by district TB coordinators, and are updated from treatment cards that health center staff members use to document and facilitate patient follow-up. TB registers allow a quick analysis of case detection and treatment results, which is a key component of visits by provincial supervisors. TB registers also allow district-level staff to themselves assess local situations. In theory, quarterly reports of aggregated data on case finding and treatment outcome are compiled from TB registers and are sent on to the provincial level, where data are reviewed and forwarded to the national level.

The annual global TB reports published by WHO illustrate that many countries have difficulty presenting data in sufficient quality and states of completion, especially regarding treatment outcome. The problem is often caused by a lack of adequate supervision from the central to the provincial levels, and from the provincial to the district levels, and, in countries with large districts, from district centers to health units that treat TB patients. For example, East Java Province, Indonesia, with 35 million inhabitants and 38 districts, had only two provincial supervisors.

TBCTA has provided training for health care staff in monitoring tools and methods (via supervisory checklists, monitoring meetings, etc.), offered assistance with transportation and per diem, and, in some cases, has supplied additional staff for extended supervisory visits. These activities need to be maintained during and after DOTS expansion.

There is general agreement on the content of the information system used in DOTS programs. But in many settings, the basic problem in TB control has always been that TB registers are neither complete nor updated, something that is not improved by the move from handwritten to electronic registers. Some locations have introduced electronic TB registers (Botswana; parts of South Africa; East Java, Indonesia). Electronic registers can be quite useful in settings with good computer facilities, especially if the caseload is large, but handwritten registers should usually be maintained as well, unless frequent printouts have proven sufficient. Where computer facilities are less accessible, or where power outages are frequent, handwritten registers should be maintained.

Registers do not always function well; in one lung clinic in Indonesia, for example, not enough computer time is available for data entry; and because the handwritten TB register had not been updated, no data were available for review during supervisory visits. In Brazil, the nominal notification system for infectious diseases (known as SINAN) is also used as the main system for TB surveillance, but SINAN has a series of weaknesses. TB registers were introduced many years ago, but they are not in active use. It is hard to see how one can produce complete data on treatment outcome without district TB registers along with stronger supervision in provinces and

districts. Ideally, the nominative system and quarterly reports may strengthen each other, but priority should be given to ensure good-quality TB registers.

Innovation and creativity. TBCTA has been a catalyst for new ideas, including the following:

- Regular workshops for a network of nurses and allied professionals, for which USAID funds are important
- A management course in India that was organized when management problems at the national level became apparent
- A new TB supervisor's manual, designed in Central Java
- Innovative information booklets, designed in Indonesia
- Health policy discussions with more focus

III.A.4. Conclusions

Meeting global demands for technical assistance. The TBCTA partners have traditionally provided technical assistance in the form of scheduled semiannual country program reviews by an experienced TB expert. This remains valid, but it is insufficient. In the presence of large Global Fund grants and links to the WHO 3×5 Initiative, additional short-term and long-term technical assistance, along with a more agile approach, are needed to accelerate DOTS. Newer models of providing technical assistance (including more topic-specific experts) have gradually been established by TBCTA, but often with significant delays.

Expanding technical assistance capacity. The number of high-level international TB consultants is quite limited, despite efforts by TBCTA to expand the consultant base. TBCTA partnership programs to train junior consultants and prepare domestic TB specialists for international responsibilities are just gaining momentum and should be carefully evaluated prior to expansion. An untapped pool of experienced personnel from developing countries (i.e., ex-national TB program managers) is increasingly available.

Trained cadre of TB program specialists. Increased training for key TB staff from target countries has been a key element of TBCTA activities. TBCTA funds for international and regional training courses have improved course planning and greatly increased participation in existing courses in strategic planning, laboratory skills, and operational research. Gaps in training have been identified and new courses have been developed and presented for TB human resource managers and program managers. To meet national and sub-national training needs, a well-conceived, stepwise approach has been adopted, most fully in Indonesia and South Africa. The model has been most fully applied in Indonesia, and will be evaluated in March 2004. The results are expected to lead to replication in other countries.

Laboratory improvements. Laboratory services are often a weak link in TB control programs. TBCTA has supported the strengthening of laboratory networks and the use of quality control

measures for smear microscopy, which is the basis for TB diagnosis. Both technical assistance and national laboratory training courses have been offered in many countries. Microscopes and reagents have also been procured. Most countries need further strengthening of microscopy networks. Technical assistance, training, and equipment have been provided to reference laboratories to ensure sufficient proficiency for participation in WHO/Union drug-resistance surveys. Training courses on standardization of drug susceptibility test methods have been conducted. While all requisite conditions are still not in place in several countries, they are expected to be in place in Brazil, D.R. Congo, Indonesia, and a few other countries by 2004–2005.

Supervision, monitoring, and information systems. The quality of supervision and the completeness and accuracy of TB data are weak in many countries. TBCTA has supported training in monitoring tools and methods, and supplied funds for transportation and per diem, and in some cases, additional staff. These activities need to be maintained during and after DOTS expansion.

Program sustainability. TBCTA support to national TB programs via strategic planning, technical assistance, training, laboratory improvements, and more supervision is likely to lead to sustained improvement in TB program performance. The careful, stepwise approach to expansion of DOTS coverage is appropriate and cost-effective for avoiding multi-drug resistance associated with poorly administered treatment. The major constraint to program sustainability is the low level of host-country financing, which is inadequate to continue donor-supported programs at their present levels. TBCTA has done little to develop advocacy tools or to carry out training that could be used to encourage the greater funding needed to sustain TB programs.

III.B. Integration and Collaboration Objectives

III.B.1. Collaboration and cooperation with international TB programs and initiatives

The coalition has been quite effective in linking its actions in an almost ideal fashion to the major international TB programs and initiatives, including the Stop TB Partnership and its Global Plan to Stop TB, the Global TB Drug Facility, the Global Fund to Fight AIDS, Tuberculosis and Malaria, and the Green Light Committee. TBCTA semiannual visits and field activities provide valuable information to key coalition partners (KNCV, the UNION, WHO, and CDC), and are used in decision-making processes by the Stop TB Partnership Coordinating Board, the Global Drug Facility, the Green Light Committee, and the Global Fund.

KNCV provides assistance in 25 countries. Of those, 14 also receive support through TBCTA, and KNCV is the lead TBCTA partner in eight countries (Cambodia, Dominican Republic, Egypt, Ghana, Indonesia, Malawi, Mozambique, and South Africa). The UNION is the lead TBCTA partner in D.R. Congo and Senegal, and WHO is the lead TBCTA partner in Brazil, El Salvador, Haiti, and Nigeria. Such country-level support provides “real world” experience and perspectives

that are crucially important to the policy formulation, priority setting, and planning activities of the major international TB programs and initiatives in which TBCTA partners participate.

Clearly, the coalition partners have a long history of collaboration. This collaboration continues to the present, and it has been enhanced by the creation and functioning of the coalition. In interviews with leaders and key staff of each of the TBCTA principals, the evaluation team consistently heard that the coalition has led to stronger and better collaboration among them, and, significantly, between them and other international TB programs and initiatives, through which they now speak with a more collective and influential voice.

The Stop TB Partnership and the Global Plan to Stop TB. KNCV, the UNION, WHO, ATS, and ALA have all played pioneering roles in the initiatives that led to the Amsterdam Declaration to Stop TB, the creation of the Stop TB Partnership, and the founding of the GDF. The UNION, and CDC are active members of the Stop TB Coordinating Board, for which WHO serves as the host agency. Of the 27 members of the Stop TB Coordinating Board, the Stop TB Partnership secretariat regards the TBCTA members as the most important technical partners of its board.

The four key TBCTA partners (KNCV, the UNION, CDC, and WHO) also participate in various Stop TB working groups that cover such important areas as DOTS expansion, TB/HIV, DOTS-Plus, and multi-drug resistant TB, and they contribute to the work of the WHO technical advisory group, the GDF, and the GLC. These partners are all members of the Strategic and Technical Advisory Group (STAG) of WHO. The director of KNCV serves as chairman of STAG, represents the European region of WHO, and participates as a member of the Stop TB coordinating board.

The Stop TB Partnership Coordinating Board secretariat also values the contributions the coalition has made to national programs, such as assisting in the development of proposals to the GDF and the Global Fund, and for its influence with USAID Missions (e.g., in the Dominican Republic) to bring greater support to TB programs. The secretariat would be pleased if TBCTA continued to 2015 because of many contributions it has made to high quality technical assistance, funding, and advocacy efforts.

KNCV serves as the secretariat of the International Tuberculosis Surveillance Center, which was established through the collaboration of WHO, the UNION, and KNCV.

The Global Fund to Fight AIDS, Tuberculosis and Malaria. Established in January 2002 at the urging of United Nations Secretary-General Kofi Annan, the Global Fund is an independent agency that raises money from governments, foundations, and individuals, and funnels those funds to effective programs that bring greater fairness and efficiency to the battle against the three diseases.

The first round of Global Fund grants for TB work was announced in April 2002 for proposals from China, Ethiopia, Ghana, India, Indonesia, Mongolia, Panama, Thailand, Vietnam, and Zambia. The grants totaled \$295 million; \$48 million in the first year alone. The first-round grants also provided \$98.3 million for joint TB and HIV proposals, including \$16.5 million in Year 1 for Moldova, Rwanda, and South Africa. In Round Two, the Global Fund received proposals totaling \$881.7 million, and awarded \$255 million over five years, including \$67.7 million in Year 1 and \$122.5 million in Year 2 to 27 countries, including the TBCTA countries of Cambodia, D.R. Congo, Egypt, El Salvador, Mozambique, and Nigeria.

In Round 3, the Global Fund approved a proposal from Haiti. By the last quarter of 2003, the Global Fund had awarded a total of more than \$2.1 billion in grants, including \$884 million in grants in January 2003, but only \$623 million in grants in October 2003, for 71 disease prevention and treatment programs in about 50 countries. The Global Fund scheduled only one round of awards in 2004, acknowledging that the demand for funding might outstrip its current resources. To date, about 60 percent of the funds have been awarded to HIV/AIDS programs, 23 percent to malaria programs, and only 17 percent to TB programs.⁵³

As the Global Fund has expanded its support for control activities, TBCTA support for technical assistance has been particularly useful and much appreciated in countries that receive TBCTA assistance and in those also seeking monies from the Global Fund. Brazil is currently preparing a proposal for Round 4. A TBCTA-assisted proposal for Senegal is under consideration. The lack or insufficient level of TBCTA assistance in Cambodia for these purposes was reported by interviewees, and the evaluation team notes this with concern. For El Salvador, a medical officer has been appointed as part of the TBCTA workplan. There are no joint GFATM and TBCTA workplan, but both workplans have been developed in coordination.

A representative from the UNION is on the technical review panel that reviews proposals and formulates recommendations for action by the Global Fund board.⁵⁴

The availability of Global Fund funds to support service activities (but not for technical assistance) for the Millennium Development Goals, and their implications for expanding DOTS, and for the new ISAC initiative are expected to substantially increase the need and the demand for technical assistance in the high burden countries, as well as change the types of technical assistance and the ways that assistance is delivered. Many TBCTA countries are already asking for more frequent technical assistance visits of longer duration, or for full-time consultants, both expatriate and local, as appropriate.

⁵³ David Brown "Global funds cuts grants for fighting three diseases," *The Guardian Weekly*, October 2–29, 2003, p. 34, columns 1–5; and David Brown, "Global Fund Slows Aid Going to Fight 3 Diseases," *The Washington Post*, October 17, 2003, p. A.2.

⁵⁴ Although she serves on the panel in her personal, rather than her institutional, capacity, she inevitably brings with her in-depth country knowledge provided via the TBCTA program activities.

Global Fund focal points at WHO report that new models for technical assistance are emerging in places such as Kenya and Uganda, where consultant visits are now scheduled to occur every two months. As the demand for TBCTA technical assistance increases in cooperation with the Global Fund and other international TB programs and initiatives, TBCTA will need to strengthen its capacity to respond, as well as the flexibility of its response.

Two other international TB initiatives were organized to ensure the supply of first-line TB drugs for DOTS expansion programs (the Global Drug Facility) and the supply and rational use of second-line TB drugs for DOTS-Plus programs (the Green Light Committee). The GDF secretariat is under the Stop TB Partnership and is housed within WHO. The Green Light Committee is also hosted by WHO, and, under the DOTS-Plus multi-drug resistant TB working group, is one of the six working groups of the Stop TB Partnership. The Global Drug Facility and the Green Light Committee are discussed below.

The Global Drug Facility. The GDF was established in March 2001 to expand access to high-quality, first-line TB drugs and to prevent shortages of drugs that could threaten the implementation of DOTS programs, especially in high-burden countries, and, thereby, to indirectly facilitate DOTS expansion. GDF has four main activities:

- Making grants of first-line TB drugs to countries that qualify for support
- Processing applications by a technical review committee, followed by an ongoing monitoring and evaluation process to ensure the rational use of the drugs within the DOTS system
- Procuring drugs through a contractual partner on a centralized-pool basis and shipping them to a country that then takes responsibility for drug management and delivery
- Mobilizing Stop TB partners to provide technical assistance in areas such as preparing the application, setting up in-country drug management, and conducting monitoring and evaluation activities

The GDF is one of the most successful initiatives undertaken by the Stop TB Partnership to date. The TBCTA relationship to the GDF, which is informal but very effective, involves three principal mechanisms:

1. Provision of country-level technical assistance to develop work plans and proposals, such as KNCV has done in the Dominican Republic and El Salvador with TBCTA funding, and in Kenya and Moldova with CIDA funding
2. Provision of TBCTA funding to cover costs that cannot be covered by the GDF, such as the customs clearance costs of GDF-funded drugs, which KNCV provided with TBCTA funding in Indonesia
3. Provision of additional technical assistance and support under the ISAC initiative, which aims to accelerate DOTS expansion by intensified efforts of the DOTS Expansion working

group, the Global Fund, the GDF, and other partners. Of the 14 TBCTA countries, Indonesia has been selected as a Phase I ISAC country for intensified action.

The GDF now operates in 56 countries, including nearly all the TBCTA countries. The PMU reports that, to date, no proposal to the GDF from a TBCTA country has been rejected for lack of technical assistance provided by TBCTA. In fact, technical assistance from coalition partners enables countries to better leverage GDF support.

The GDF model strongly relies on technical partners to support a country in other aspects of the TB program; for example, drug management expertise and staff training. GDF delivers most of its services through the technical partners in the Stop TB Partnership, such as the WHO, the UNION, KNCV, Management Sciences for Health, and CDC. Hence, countries with a strong presence of these partners are better able to leverage funds from the GDF. [Evaluation of the Global TB Drug Facility, Stop TB Partnership. April 2003.]

The Global Fund gave support for multi-drug resistant TB treatment in some countries that did not receive approval by the GLC in the beginning. This was unfortunate, but soon an agreement was made that such drugs should be procured only for programs that had been approved by the GLC, and this has been followed. For first-line drugs, there is no mandatory link between the Global Fund and GDF. The concern is that the Global Fund may fund drugs that governments will buy from suppliers that do not fulfill international quality standards.

In summary, TBCTA works with the GDF to provide national-level technical assistance for planning GDF proposals, to review proposals to the GDF, or both, and informally reports on implementation of GDF-supported activities in TBCTA countries. Management Sciences for Health generally provides rational drug management technical assistance and training in TBCTA and other countries, and WHO provides some support and formal monitoring of implementation in most countries.

The Green Light Committee. The GLC evaluates DOTS-Plus proposals and recommends qualifying projects for increased access to lower-cost, high-quality, second-line anti-TB drugs needed for managing multi-drug resistant TB. WHO and its partners have negotiated the prices, and access is limited to programs approved by the GLC. Unlike GDF, the GLC is not a supplier of drugs; rather, it is a technical committee. To date, the GLC has approved DOTS-Plus proposals from only about 30 countries, in part because the prerequisites are stringent. WHO has only about 10 consultants available to assist countries to submit their proposals for DOTS-Plus programs.

TBCTA funds have also been used to fund the required drug-resistance surveys and to upgrade laboratories. There is a potential role for TBCTA to help build technical capacity within countries to manage DOTS-Plus programs and to provide technical assistance for the training programs needed to implement DOTS-Plus programs. TBCTA decided to support DOTS and not DOTS-Plus programs, because a functioning DOTS program is a prerequisite for an effective DOTS-

Plus program. DOTS-Plus programs are also increasingly seen as an integrated part of DOTS programs. Management Sciences for Health provides technical assistance to many countries in order to establish the drug management systems needed for supporting DOTS-Plus programs.

As with the Global Fund, representatives from many of the TBCTA partners are on the technical review panel that reviews proposals and formulates recommendations for action by the GDF.

III.B.2. Establishing linkages between TB and HIV/AIDS control programs

The grant agreement objective—to *develop or strengthen linkages between TB control programs and HIV/AIDS prevention and treatment programs*—was vaguely defined, and there has been no focus of responsibility for this objective within the TBCTA structure. Additionally, some tension between TB and HIV/AIDS programs exists at national (and global) levels because of the greater size and influence of HIV/AIDS programs. Most TB leaders believe that efforts to develop such linkages must be initiated or financed by HIV/AIDS programs. Consequently, the team found little evidence of significant coordination between TB and HIV/AIDS programs at the service-delivery level in most TBCTA countries. However, one of several initiatives underway in Malawi with Médecins Sans Frontières offers possibly the best model for delivering antiretrovirals, but it needs to address sustainability. Other initiatives are being planned in Mozambique, Nigeria, Senegal, (four pilot projects), and South Africa. In Indonesia, KNCV (via TBCTA), Family Health International, the national TB program, and the HIV/AIDS sub-directorate of the Ministry of Health are developing an initiative to provide joint TB-HIV/AIDS services in ten prisons in Java.

While helpful guidelines for implementing collaborative, or at least cooperative, TB and HIV program activities⁵⁵ have been developed recently by WHO's Department of HIV/AIDS and Stop TB Department within the context of its strategic framework to decrease the burden of TB-HIV,⁵⁶ the general WHO experience to date appears to be that the early attempts to implement collaborative TB-HIV programs, particularly integrated TB-HIV programs, were difficult. WHO has piloted TB-HIV models in several countries and is planning initiatives in D.R. Congo and Haiti. However, the integration has not been attempted at any large scale.

⁵⁵ *Guidelines for Implementing Collaborative TB and HIV Programme Activities*, World Health Organization, 2003.

⁵⁶ *Strategic Framework to Decrease the Burden of TB/HIV*, World Health Organization, 2003.

Managing and Preventing TB-HIV Co-infections: The Way Forward

The expanded scope of the new strategy for TB control in high HIV-prevalent populations includes interventions against TB (intensified case-finding and cure, and TB preventive treatment) and interventions against HIV (and therefore indirectly against TB), such as condoms, treatment of sexually transmitted infections, harm-reduction against injected drug use, and highly active antiretroviral therapy.

Some of the TB-HIV interventions described above clearly fall under the responsibility and expertise of a national TB program (such as DOTS expansion), while others (such as prevention of mother-to-child HIV transmission; voluntary counseling and testing services, and safe blood supply) are the responsibility of a national AIDS control program. However, most activities fall in the middle of the spectrum with much potential overlap between the programs. For example:

- Increased community involvement can benefit both TB diagnosis and care, and HIV/AIDS care and prevention.
- Isoniazid preventive treatment is a concern of both TB services (which are likely to supply and monitor Isoniazid therapy) and of the voluntary counseling and testing, and treatment services of a national AIDS control program (whose clients will benefit).

At the service-delivery level, potential reciprocal synergies exist between different services providers. For example:

- Patients with TB have a high rate of sexually transmitted infections and would, therefore, benefit from screening and treatment for such infections.
- Clients who seek voluntary counseling and testing and have tested positive for HIV, have a high rate of TB and, therefore, benefit from TB screening and treatment; and patients with TB generally have high rates of HIV and, therefore, benefit from voluntary counseling and testing, and related services.

TB-HIV/AIDS Interventions at the Home and Community, Primary Health Care, and Secondary Health Care Levels of the Health System	
Level of Health Care	TB-HIV Interventions
<p>Home and Community (e.g., NGOs, community-based organizations, faith-based organizations, and governmental and community health programs)</p>	<ul style="list-style-type: none"> • Behavior change communication (BCC) activities for TB, HIV, and sexually transmitted infections‡ • Condom promotion‡ • Nutritional advice and support‡ • Psychological support‡ • Community DOTS for TB • Community-based palliative and terminal care‡ • Antiretroviral therapy
<p>Primary Care Facilities (e.g., government health centers, mission health centers, NGOs, and other private health centers)</p>	<ul style="list-style-type: none"> • Voluntary counseling and testing for HIV • TB case-finding and treatment† • Intensified TB case-finding*‡ • Isoniazid preventive treatment and Cotrimoxazole preventive therapy*‡ • Condom promotion*‡ • Treatment for sexually transmitted infections (syndromic management)‡ • Syndromic management of HIV-related opportunistic infections • Prevention of mother-to-child HIV transmission‡ • Antiretroviral therapy <p>§</p>
<p>Secondary Care Facilities (e.g., government hospitals, mission and private hospitals)</p>	<ul style="list-style-type: none"> • Diagnosis and treatment of HIV-related diseases* • In-patient palliative care • Antiretroviral therapy§ • Safe blood
<p>* Interventions available at home and in communities as part of community-based prevention and care services † The provision of single-use sterilized syringes for streptomycin injection as required per regime is a collaborative TB-HIV program activity ‡ Collaborative TB-HIV program activities § The level in the health system at which antiretroviral therapy needs to be made available is a national policy issue and is currently being debated in many countries. Whenever antiretroviral therapy is provided to patients with TB, this is to be considered a collaborative TB-HIV program activity.</p>	

But the rationale for well-coordinated joint TB and HIV/AIDS programs is compelling⁵⁷ and the increasing use of antiretroviral drugs makes coordination between TB and HIV/AIDS programs especially urgent. Interventions to control TB in high HIV-prevalence countries involve interventions directly against TB (prevention of new cases, and case detection and treatment) and interventions against HIV, including the prevention of HIV transmission and the provision of antiretroviral treatment to increase and maintain immune function. The new strategy for TB control in high HIV prevalence populations and the organization of service delivery for joint TB-HIV/AIDS programs are summarized in the previous two graphics.

Joint TB-HIV/AIDS programs are good for patients and good for health systems because they can substantially improve both the efficiency and the quality of service delivery. WHO, which assisted operations research projects in Malawi, South Africa, Zambia, and Zimbabwe, concluded that joint TB-HIV programs could increase efficiency by up to six times while improving the quality, effectiveness, and affordability of clinical care. While Malawi is seen to be the current “intellectual leader” in this field, other good models are emerging in Kenya, Tanzania, and Uganda.

Some TBCTA partners see the possibility that TBCTA could make significant contributions in the important field of TB-HIV joint programs through the following:

- Continued participation in the Stop TB Partnership TB-HIV Working Group that meets annually
- Participation in the Stop TB Partnership TB-HIV core group meetings that are held three to four times annually
- Country-level technical assistance to plan and implement TB-HIV/AIDS projects, and operations research in this area

Two TBCTA partners, WHO and CDC, would like to do more to strengthen coordination between TB and HIV/AIDS programs, while the UNION has a new USAID grant to carry out TB-HIV/AIDS operations research. Therefore, TBCTA has some excellent opportunities to make important contributions to this field by:

⁵⁷ The increasing number of TB infectious cases in people living with AIDS poses an increased risk for TB transmission to the general community. HIV has also been shown to increase the risk for recurrent TB. Therefore, in addition to there being a number of points at which specific anti-TB interventions can be made (BCG vaccination, preventive treatment for TB, and treatment of active TB cases), there are also several points at which anti-HIV interventions can be made that will reduce the chance for active TB developing (e.g., condom promotion, treatment of sexually transmitted infections, safe injecting drug use, and highly active antiretroviral therapy). The most powerful intervention against TB beyond case finding and treatment is to prevent new HIV infections from occurring in the first place in people already infected with TB, as this will greatly reduce the likelihood that latent TB infection will progress to active TB disease. [From *Guidelines for Implementing Collaborative TB and HIV Programme Activities*, WHO, 2003. See rationale for additional interventions beyond TB case finding and treatment to control TB in high HIV prevalent populations, page 16.]

- The PMU's identifying a focal point of responsibility within the TBCTA structure, giving this objective a higher priority, and playing a more assertive leadership role during the remainder of the grant period
- Facilitating a process involving KNCV, the UNION, CDC, and WHO that could help plan a few major national-level initiatives by the end of the current grant period for implementation in a possible extended grant period, or through a future TBCTA grant

III.B.3. Strengthening linkages between TB control programs and multi-drug resistant TB efforts

TBCTA rightly decided to focus its efforts on the prevention of multi-drug resistant TB by establishing effective DOTS programs. As more countries have established DOTS programs, several have recently been approved by the GLC for multi-drug resistant TB treatment or are in the process of obtaining GLC approval, often with funding from the Global Fund.

In Egypt, where more than 300 cases of multi-drug resistant TB have been identified, pilot multi-drug resistant centers are being established, and the first cohort of 70 patients with multi-drug resistant TB will soon receive treatment with funding from the Global Fund.

In many cases, TBCTA personnel have assisted national teams in the planning and preparation of Global Fund applications and, thereby, facilitated planning for multi-drug resistant TB treatment activities to be integrated within national TB programs.

Brazil, however, has taken a different approach. The multi-drug resistant TB treatment program is operated as a separate program, coordinated by the Helio Fraga Institute. Multi-drug resistant TB treatment takes place at provincial hospitals and without consistent, direct observation. The use of unusual treatment regimes for new cases and re-treatment, the lack of direct observation, and incomplete information about treatment results could unnecessarily substantially increase the risk of developing an even more serious multi-drug resistant TB public health problem in Brazil. A senior team from TBCTA (representing WHO, the UNION, KNCV, and the Pan American Health Organization) on a visit to Brazil's Ministry of Health and the Helio Fraga Institute could play a useful role to help correct this situation.⁵⁸

⁵⁸ A survey in 1995–1996 published in the first WHO/UNION drug resistance report showed a low level of multi-drug resistant TB cases but did not include hospitals. A considerable number of multi-drug resistant TB cases are being treated, but without better routine data in the national TB program, it is difficult to assess what proportion this represents. Until the next survey occurs, we will not know the size of the multi-drug resistant TB problem, but several conditions are present that in other settings have been shown to increase the risk of multi-drug resistant TB: no directly observed treatment by health staff, only three drugs in the first treatment, and a very risky re-treatment regimen. In addition, the lack of information is a concern, because a potential problem is not being detected.

III.B.4. Integrating TB control efforts within primary health care services more effectively

In most countries, TB is now diagnosed and treated in general health facilities and is therefore integrated into the general health system. A basic approach to the integration of selected TB control activities at the primary health care level has been established in Indonesia where a well-developed and staffed network of primary health care facilities exists at the district and subdistrict levels of the government health system. Each health worker at a primary health facility is assigned responsibility for conducting information, education, and communication (IEC) activities within a specified number of villages in order to promote greater awareness about TB, to create greater demand for TB services, to identify suspect cases, and to facilitate referral of suspect cases to a “referral health center” that has a microscope. For each referral health center there are three to five satellite health centers without microscopes (smears are taken and sent to the referral health center), where direct observation of treatment can occur after the diagnosis is confirmed by the referral health center. Health center staff perform village-level IEC, and coordinate suspect case detection and referrals.

The Indonesia national TB program does not use the community-based primary health clinic infrastructure that, in Central Java, for example, includes more than 46,000 village health posts (*posyandu*), 4,000 village family health care *polindas*, and 4,000 village midwives. The Central Java government’s priority is to create some 5,000 village-level polyclinics, in part through community financing, which might eventually be used for supporting a community-based DOTS program. Another fundamental challenge for the national TB program in Central and East Java is that most patients with TB choose not to go to the public health centers; rather, they attend private clinics or public lung clinics.

In Brazil, several different models are being tested in different areas. The Family Health Program, which operates in 92 municipalities, has developed two DOTS models: one model is based at municipal health centers and uses community health workers (called community health “agents”), and another model that is also based at a municipal health centers, but does not use community health agents. The roles of community health agents are to raise awareness about TB, and to detect and refer suspected TB cases mainly on the basis of respiratory symptoms.

The Johns Hopkins University is conducting research in three areas of Rio de Janeiro (AP10, AP5.1, and AP2.1) using different treatment regimes, organizational approaches, and incentives to increase compliance and reduce default rates, but the local Pan American Health Organization TB advisor is skeptical because, in that person’s opinion, the approaches being tested would not be replicable and sustainable on a national scale because of the high cost of financial incentives (food vouchers, and bus tokens to cover transportation costs). One area, AP2.1, is testing a decentralized DOTS approach that uses 40 community health agents in a large slum with 9,000 residents, a church with two nurses that serves as an “advanced health post,” and three health centers. The Johns Hopkins research hypothesis is that using community health agents and

incentives will improve cure rates more than routine care will. The Johns Hopkins research projects deserve to be watched and the results widely shared if cure rates are substantially improved, as is expected; however, there appears to be a communication problem between the Johns Hopkins research team and others working in the Brazil TB community.

Another approach being used in Brazil is that of the largest NGOs, BEMFAM. BEMFAM originally worked in reproductive health, family planning, and maternal and child health, but has expanded its roles into the fields of TB and HIV/AIDS. More than 1,000 municipalities in 16 states of northeastern, central, and southeastern Brazil have contracts with BEMFAM. It has resident staff in nine of the 16 states in which it works, and it operates 3 laboratories, one in Rio de Janeiro and two in other states. BEMFAM aims to train community health agents in IEC, case detection and referral, and treatment observation; to rapidly improve DOTS coverage; to reduce default rates; and to improve treatment success rates wherever it works. BEMFAM also seeks to integrate TB control and primary health care services, and eventually to integrate TB and HIV/AIDS services.

In countries without a well-developed health system or primary health care network, such as in many African and Caribbean nations, NGOs and faith-based mission health services can play useful roles in TB control programs, at least by providing behavior change communication (BCC), suspect case detection and referral services at the primary health care and community levels, and by establishing community-based DOTS programs. In D.R. Congo, for example, NGOs and faith-based mission health services are prevalent throughout the country and provide the preponderance of health care, given the weaknesses of the government health care system. Of the 514 health zones in D.R. Congo, SANRU, the NGO umbrella organization that is supported in part by Inter-Church Medical Assistance (IMA, based in Maryland), has provided integrated primary health care services and DOTS in 56 health zones since 2002. The National League Against TB and Leprosy, another NGO in D.R. Congo, provides social mobilization and integrated primary health care services, including TB services, in 47 zones. The Damien Foundation, which is supported by the American Leprosy Mission and similar organizations in Germany (ALTI) and Belgium (LNAC), is a major NGO that works in TB and leprosy control in D.R. Congo, and has been credited with overcoming structural problems related to the weak government health system. The Leprosy Mission International operates five leprosy and TB projects that use health communicators for BCC work, but it might stop its TB work as services from other organizations become available in its areas.

It is interesting to note that the Country Coordinating Mechanism for D.R. Congo includes four representatives from the Ministry of Health, four from other government ministries (International Cooperation, Planning, Finance, and the Stock Exchange Association), four United Nations and European Union representatives, and ten representatives from faith-based organizations and NGOs (including the Damien Foundation, the Network of National Health NGOs, the NGO's AIDS Forum, National Anti-TB League, Médecins Sans Frontières, and BASICS).

More guidance is needed on the nuts and bolts of how to promote, establish, and sustain effective community involvement in support of TB programs. In D.R. Congo, the Global Fund-funded TB program has a major element focused on community involvement, but the national TB program does not know quite how to proceed because the one-day-per-year “polio eradication model” that had been so successful for polio is entirely inappropriate for TB control programs. USAID in that country wanted to promote community involvement too quickly, before the TB program operations were sufficiently established and capable of meeting the demand created by the heightened community awareness.

While some countries have made steady progress in using NGOs (e.g., Brazil, D.R. Congo, Indonesia), village organizations (e.g., Ghana), community health workers (e.g., Brazil, D.R. Congo, Malawi), and in integrating TB and primary health care services (e.g., D.R. Congo, Malawi, Nigeria), several countries and USAID Missions have sought guidance on how to best organize and use NGOs, community-based organizations, community health workers, and volunteers to support TB control efforts, and in methods to effectively integrate TB control efforts within primary health care services. Unfortunately, there is currently no focus of responsibility within the TBCTA structure for capturing the valuable lessons that can be learned from field initiatives that have begun or are planned, nor for promoting this important objective.

A greater degree of TBCTA involvement in working with NGOs, faith-based organizations, and other current and potential partners, and in promoting more community-based activities, especially where joint TB-HIV/AIDS programs are needed at the primary health care and community levels, would be a “win-win” advance for the various national TB programs and USAID Missions, as well as for TBCTA partners (particularly KNCV) in order to develop greater capacities and provide more assertive leadership for these crucial areas.

III.B.5. Engaging private practitioners and hospitals in TB control programs

In countries with a strong private medical care system, the engagement of private hospitals, clinics, and medical practitioners into the TB control program is crucially important. In Indonesia, many patients with TB are diagnosed and treated by the private sector, but these cases are not reported, their treatments are not directly observed, and a high proportion of these cases default. Therefore, these data do not enter the TB control program database and they represent a significant risk for the creation of multi-drug resistant TB. Advocacy with local and national medical societies, postgraduate medical schools, and senior health and other government leaders is urgently needed and will be undertaken in provinces where the problem is recognized, such as Central Java.⁵⁹ This problem is not very well recognized in many countries.

⁵⁹ Evaluation of the HDL Hospital DOTS linkage project in DI Yogyakarta, in collaboration with PERSI, the Ministry of Health, KNCV, UAB Gorgas, and the WHO, June 2003.

In the Philippines, TBCTA helped design a private-sector-focused project that was then “bid” by USAID/Philippines; although TBCTA could not place a bid because it is not an American NGO, it would like to periodically evaluate the program and seek important lessons that could be of value in other TBCTA-assisted countries.

In many traditional societies, the traditional private practitioners (traditional birth attendants, traditional healers, herbalists, acupuncturists, spiritualists, etc.) can be engaged for providing valuable BCC services to help raise awareness about TB, to detect suspect cases based on symptoms, and to refer suspect cases to the nearest DOTS centers for treatment.

TBCTA could play a useful role by establishing advocacy guidelines for use in these situations, as well as for other situations described in this report.

III.B.6. Collaboration and cooperation with other USAID-funded agencies and stakeholders

A high level of collaboration and cooperation exists in most countries between TBCTA and its principal client, the national TB program, and other USAID-funded cooperative agencies, stakeholders, and groups working in TB control. In Indonesia, for example, KNCV, the lead TBCTA partner, regularly participates in the TB Partnership Forum, which includes most NGOs and other donors, faith-based organizations, WHO, and USAID implementing partners, such as Project Concern International and others.⁶⁰ KNCV and Indonesia’s national TB program maintain close working relations with the following organizations:

- Koalisi untuk Indonesia Sehat (KuIS, the Coalition for Healthy Indonesia, an organization established through collaboration with The Johns Hopkins University Bloomberg School of Public Health Center for Communication Programs), which focuses on coalition-building and advocacy for demand creation, and which will be used at the district level to promote advocacy for health education and behavioral change with respect to DOTS
- Aksi Top AIDS (ASA/STI/HIV/AIDS Prevention Support Project) implemented by Family Health International in collaboration with the Directorate General of Communicable Disease Control and Environmental Health of the Ministry of Health
- Management and Leadership Program implemented by Management Sciences for Health, which provides assistance with drug management and logistics, and clearance and distribution of GDF drugs, and in preparing provinces and districts for distribution of GDF fixed-dose combinations through training and the upgrading of stores

⁶⁰ The TB Partnership Forum also includes, among others, World Vision, Indonesia, Yayasan Pembangunan Indonesia Sehat (YPIS), Persatuan Dharma Karya Indonesia (PEFDHAKI), Perkujupulan Pemberantasan Penyakit Tuberculosis Indonesia (PPTI) and Netherlands Leprosy Relief (NLR).

In most countries, TBCTA has a positive cooperative and collaborative relationship with Management Sciences for Health where it provides RPM+ training for DOTS and DOTS-Plus programs.

In Egypt, TBCTA collaborated effectively with the Naval Medical Research Unit 3 (NAMRU-3), which provided assistance to strengthen the TB laboratories used by the national TB program.

While TBCTA activities have been somewhat limited in Brazil, several emerging programs deserve TBCTA attention, such as the USAID-funded project PACS/FHP (the Community Health Agents and Family Health Projects) and some NGOs, such as BEMFAM, to strengthen monitoring, supervision, evaluation, and training in the priority municipalities participating in the DOTS expansion program.

The team found only two projects in which cooperation could be improved:

1. The Johns Hopkins University research projects in Rio de Janeiro (for which TBCTA should not be faulted, because the problem appears to be on the Johns Hopkins side), which could provide valuable lessons for the national TB program and TBCTA, and the problem might be resolved by the diplomatic intervention of USAID; and
2. The Helio Fraga Institute in Brazil, which is in noncompliance with internationally accepted standards and procedures, and which poses a potential threat to a worsening of multi-drug resistant TB. The problem might be most effectively addressed by a senior team visit of TBCTA partners (WHO, Pan American Health Organization, the UNION, and KNCV) to the Ministry of Health and to the Helio Fraga Institute. The current RPM+ technical assistance activities with the Helio Fraga Institute, including decentralization of multi-drug resistant TB treatment, could also lead to modifications that would strengthen the project.

III.B.7. Conclusions

Collaboration and cooperation with international TB programs and initiatives. The coalition has been effective in linking its actions in an almost ideal fashion to the major international TB programs and initiatives. TBCTA semiannual visits and field activities provide valuable information to key coalition partners that is then used in the decision-making processes of the Stop TB Coordinating Board, the GDF, the Global Fund, and the GLC.

Establishing linkages between TB and HIV/AIDS programs. This grant agreement objective was vaguely defined, and there has been no focus of responsibility for this objective within the TBCTA structure. Some tension between TB and HIV/AIDS programs exists at national and global levels because of the greater size and influence of HIV/AIDS programs; most TB leaders believe that efforts to develop such linkages must be initiated or financed by HIV/AIDS programs. The team found little evidence of significant coordination between TB and HIV/AIDS

programs at the service-delivery level; however, such initiatives are taking place in Malawi and are being planned in Mozambique, Nigeria, Senegal, and South Africa. The increased use of antiretroviral drugs makes coordination even more urgent. Two TBCTA partners, WHO and CDC, would like to do more to strengthen coordination between TB and HIV/AIDS programs, whereas the UNION has a new USAID grant to carry out TB-HIV/AIDS operations research.

Strengthening linkages between TB control programs and multi-drug resistant TB efforts.

TBCTA rightly decided to focus its efforts on the prevention of multi-drug resistant TB by establishing effective DOTS programs. As more countries have established DOTS programs, several have recently been approved by the GLC for multi-drug resistant TB treatment or are in the process of obtaining GLC approval, often with Global Fund funding. In many cases, TBCTA personnel have facilitated the integration of multi-drug resistant TB treatment activities within national TB programs. Brazil needs gentle TBCTA advocacy to encourage fuller adherence to international standards.

More effective integration of TB control efforts within primary health care services. TB diagnosis and treatment are typically provided in general health facilities and are, therefore, integrated into the general health system. A basic approach to the integration of selected TB control activities at the service-delivery level has been established in Indonesia where there is a well-developed and staffed primary health care network. In countries without a well-developed network, NGOs and mission health services can play useful roles in BCC, and TB case-detection at the primary health care and community levels. Several countries and USAID Missions have sought guidance on the best ways to organize and use NGOs, community-based organizations, community health workers, and volunteers to support TB control efforts, and on the best ways to more effectively integrate TB control efforts with primary health care services. Unfortunately, there is currently no focus of responsibility within the TBCTA structure for capturing the valuable lessons that can be learned from field initiatives that have begun or are planned, nor for promoting this important objective.

Engaging private practitioners and hospitals in TB control programs. In countries with a strong private medical health care system, the integration of private hospitals and medical practitioners into the TB control program is crucially important. In Indonesia, many patients with TB are diagnosed and treated by private-sector practitioners, but these cases are not reported, their treatments are not directly observed, and a high proportion of these patients default on their treatment. Therefore, these case data do not enter the TB control program database and they represent a significant risk for creating multi-drug resistant TB. Advocacy among local and national medical societies, postgraduate medical schools, and senior health and other government leaders is needed. TBCTA could play a useful role by establishing advocacy guidelines for use in this situation, as well as for other situations described in this report.

Collaboration and cooperation with other USAID-funded agencies and stakeholders. In most TBCTA countries, collaboration and cooperation exist between TBCTA and other USAID cooperative agencies, stakeholders, and organizations. The TB Partnership Forum in Indonesia, for example, brings together all NGOs working in TB control, the national TB program, other donors, and faith-based organizations to improve coordination, discuss common problems and seek solutions, share experiences, and improve performance. Also, TBCTA has close relationships with: Management Sciences for Health, which provides leadership and management training; a Johns Hopkins University-assisted organization, the Coalition for Healthy Indonesia (KuIS), which seeks to strengthen advocacy for health education and behavior change with respect to DOTS; and the Family Health International-led STI/HIV/IDS Prevention Support Program in Indonesia. TBCTA practices similar levels of collaboration in almost all countries.

IV. Program Administration and Management

IV.A. TBCTA Management

IV.A.1. Management structure and efficiency

The TBCTA was established as an entity to manage and execute a USAID cooperative agreement. Although TBCTA is open to receiving funds from other donors, this has not yet occurred. The structure for program management established by the six partners consisted of (1) a board of directors that meets quarterly to make major decisions, and (2) a program management unit, located at KNCV headquarters in The Hague, The Netherlands, that manages the program on a day-to-day basis.⁶¹ KNCV is the “grantee” organization that has operational subagreements with each of its TBCTA partners.⁶²

A major delay was encountered in establishing the TBCTA operational structure. The drafting of partner subagreements and operational procedures involved several contentious issues (a common indirect cost rate, WHO adherence to the same procedures as the NGO partners, audit requirements) among the partners who had never formally worked together. USAID review of draft subagreements and the eventual approval of these common subagreements occurred only two years after the grant had been signed. USAID and KNCV finally concurred in exempting WHO from the common procedures of the other NGO partners.⁶³ With few exceptions, USAID funds did not flow from the PMU to the partners until the subagreements had been signed, so program activities by the partners were significantly delayed for 12–24 months, except when they advanced their own funds for TBCTA activities.

Over time, in addition to the board of the directors and the PMU, two additional mechanisms were established to facilitate program management and coordination: (1) two task forces—training and advocacy—that meet regularly with representatives from each partner and from USAID; and (2) a more informal proposal review caucus, with representatives from the key operational partners (KNCV, the UNION, and WHO). The proposal review caucus meets annually to discuss and prioritize for the board the partner’s proposals to use core funding. Annual costs for the PMU and program management, including the costs of quarterly board meetings, total approximately \$1 million—about one-third of the “core funds” provided by

⁶¹ KNCV was chosen as the home for the PMU and as the grantee because it was registered as an NGO with USAID and therefore could receive USAID funds. The UNION, which some viewed as the more logical home for the grant, had let its USAID registration lapse and could not be an eligible recipient until it had re-registered.

⁶² An exception is CDC.

⁶³ CDC did not have to establish standard TBCTA procedures because no TBCTA funding flows through CDC. CDC activities are funded via a separate USAID participating agency service agreement.

USAID/Washington. A portion of these costs relates to the travel costs associated with board meetings.

The proposal significantly underestimated the person-power that would be required to manage the USAID agreement, especially the time needed to manage the magnitude of USAID Mission-funded activities that were not anticipated by TBCTA. The PMU was initially to be led on a part-time basis by a senior KNCV officer (50 percent and 75 percent over the first two years) who would be supported by two newly hired, full-time PMU staff members. A full-time director began work in September 2002. At present, the PMU consists of a full-time project director, two program staff, a financial administrator, an assistant financial administrator, a human resources specialist, and a part-time coordinator for the Task Force for Training. In addition, the director of KNCV allocates 10 percent of his time to the TBCTA, as does the KNCV director of finance and organization, whereas the head of KNCV international programs allocates 25 percent of his time to the TBCTA. All staff presently at the PMU had little or no previous experience working with USAID. The learning curve for understanding complex USAID regulations has been steep. KNCV and UNION personnel have noted that USAID regulation complexity is the most complex among their various donors, giving it a rating of 5 on a 1–5 scale.

The TBCTA partners have been cautious or reluctant to immediately and fully agree to several USAID regulations and procedures, especially those that appear to conflict with European law (especially labor laws⁶⁴), customary practice (travel procedures, timekeeping for salaried employees), or those that would require a significant change in a partner's operating procedures (organization-wide financial tracking and reporting, standard \$500/day fee for consultants).⁶⁵ The need to resolve administrative matters dominated board meetings for the first 18 months of the grant. Over time, these issues have gradually been resolved, usually by complying with standard USAID practice. However, in some cases (travel procedures, salary ceilings) USAID initially required TBCTA to follow contractor guidelines rather than USAID's more flexible set of grantee guidelines. At this point, all partners appear to have in place the appropriate written procedures required for USAID grantees with one exception: basing a consultant's fee on his or her salary history.

⁶⁴ For example, "Since 1 January 2002, all companies/organizations operating in France are subject to a 35-hour statutory working week. The 'statutory working week' refers to the number of hours which may be worked before overtime rates must be paid, and overtime hours counted towards annual overtime quotas. The 35-hour week is *not* the maximum working week. As a consequence, the 'penalties' for non-compliance are an obligation to pay overtime rates, non-entitlement to state subsidies, and using up employees' permitted annual overtime quotas."

⁶⁵ KNCV continues to use financial management software that is limited in its ability to provide the detailed reporting that would be most beneficial for the TBCTA and for USAID. The UNION, however, has just complete upgrading its financial management software at a cost of \$50,000.

Efficiency. TBCTA decision-making normally occurs at quarterly meetings—a process that is highly unusual for USAID-funded organizations in which the prime grantee or contractor typically makes decisions at its project headquarters, often without the need to consult subcontractors or subgrantees. The somewhat less-immediate TBCTA decision-making process reflects the collaborative needs of a true partnership, which brings other significant advantages to this program not typically found in prime-sub relationships. The advantages of decision-making with all partners present include enhanced collaboration and program knowledge that have often been translated into close partner-to-partner cooperation to resolve country-specific problems, and into greater institutional knowledge that often flows into deliberations of the Stop TB Partnership, the Global Fund, the GDF and the GLC. The PMU has, gradually, assumed some responsibility for making timely decisions between board meetings, and it has used the Internet more effectively to obtain partner agreement on urgent matters.

The TBCTA structure appears to function relatively efficiently for decision-making and disbursement of monies from core funds. However, USAID Missions have reported major delays in TBCTA decision-making and in transferring funds for Mission-funded programs. In some cases, such as vehicle and laboratory equipment procurement, the delays have been partially due to time needed for USAID to process “source and origin” procurement waivers, and, in some cases, to international shipping restrictions during the second Gulf War. However, in other circumstances, the PMU believes it has not had sufficient authority to push a tardy partner or it has been overly collegial with the TBCTA partners by not following up to ensure timely implementation of key actions in a country work plan. Examples of this include the 18-month delay in WHO follow-up for the Cambodia program,⁶⁶ an 18-month delay in moving from the assessment stage to the implementation stage in El Salvador, and the delay in Brazil noted earlier in this report, which is also partially due to actions taken and not taken by USAID/Brazil. In addition, there was a half-year delay in initiating the Egypt program due to the war in Iraq. Although the key consultant identified by the TBCTA could not obtain a visa for more than a year, initial responsibilities were covered by other TBCTA visits.

The PMU itself, although now strengthened with a well-qualified, full-time project director, includes only one individual with significant international experience and no one with significant experience working with USAID procedures. Many functions typically carried out by staff, such as preparing annual reports, making field monitoring visits, and managing a monitoring and evaluation system, fall primarily on the project director, who also continues to provide technical leadership and support for certain program activities.

The task force mechanism was established first with the Task Force for Training. The terms of reference for the TFT and its relationship to the board were not clearly established until Year 3 of

⁶⁶ TBCTA leadership was eventually transferred to KNCV.

the program. The TFT showed only modest results initially, especially at the country level, largely because TFT members were each fully employed on other matters by their institutions and could not spend much time on TFT matters between meetings. This situation was improved in Year 3 with the hiring of extra staff. A full-time PMU employee now supports the TFT on human resource development issues at the country level, in addition to the part-time PMU employee who has continued to coordinate the TFT. The Advocacy Task Force, which was established only in Year 3, may need similar dedicated personnel support to be effective.

The organization of responsibilities within the TBCTA is clearly established for (1) the execution of each core-funded project, and (2) the lead role of a particular partner for each Mission-funded program. However, for some cross-cutting program objectives, such as TB-HIV collaboration and TB–primary health care coordination, no individual or organization within the TBCTA structure has been given primary responsibility to achieve these objectives, so they have been given little attention.

IV.A.2. Program and grant management

The TBCTA proposal described an anticipated set of program activities: “the provision of technical consultation and assistance, building local organizational and human resource capacity, and expanding the Stop TB Initiative’s network of organizations and institutions ...”.⁶⁷ In addition, “as appropriate,” the TBCTA planned to “establish a mechanism for USAID field missions to easily access support or technical assistance for TB control. The TBCTA, then in cooperation with national authorities and other in-country partners, can ‘contract’ appropriately qualified indigenous human resources or institutions to provide technical assistance and monitoring, purchase supplies and equipment and fund selected national program activities, and provide supervision.”⁶⁸

Twenty separate USAID organizational units (14 Missions and five regional programs or offices, in addition to USAID/Washington core funding) have decided to utilize the TBCTA program and have transferred funds to the TBCTA (i.e., they have “bought into” the TBCTA concept). The financial transfers to date have varied with the largest buy-in from Indonesia (almost \$5 million), to the smallest buy-in of \$150,000 from Mozambique.

Each of these 20 units has provided its own unique scope of work for TBCTA to carry out. The scope of the activities that USAID Missions and regional offices have requested has been much more diverse than anticipated in the grant proposal. Missions have often anticipated that TBCTA—the only centrally funded organization available to provide TB support until 2003—would provide the same set of program-wide services that traditional health grantees and

⁶⁷ Project Proposal, p 10.

⁶⁸ Ibid.

contractors have provided, such as family planning and child survival. This typically includes commodity procurement, hiring local staff, providing some program operating costs, running training programs, and working on a day-to-day basis with the host government and other local partners. In many cases, the Missions anticipated that TBCTA, like the traditional grantees/contractors, would establish an in-country office to manage the Mission resources and coordinate with the USAID Mission on a daily basis.

TBCTA's performance in managing USAID Mission funds has been mixed. Success stories exist in Indonesia, D.R. Congo, and the Dominican Republic; whereas performance execution in Brazil, Cambodia, and El Salvador⁶⁹ clearly has been disappointing.⁷⁰ In most other countries, performance has been acceptable and is getting better. On the basis of the evaluation team's field visits, questionnaire responses from other USAID Missions and national TB program coordinators, and TBCTA self-assessments, the TBCTA program strengths generally include the following: (1) it has offered excellent support for strategic planning and coordination; (2) it provides very high quality technical assistance; (3) its training is appropriate and effective; and (4) it has taken a measured stepwise approach to institutional strengthening. Its major weaknesses have been: (1) insufficient in-country management capacity, (2) delays in responding to some technical assistance requests, (3) slow procurement of commodities, and (4) difficulties in transferring funds to the field.

Problems often have started with the planning process, although the initial planning process started well. Despite the administrative problems described above, initial advocacy visits to encourage USAID Missions (and national TB program managers) to use TBCTA services were carried out on a timely basis (in 2001 and early 2002) in 15 countries. These visits often led directly to the development of TBCTA work plans, ideally with the participation of TBCTA, the national TB program, and the USAID Mission. A positive example is found in Indonesia, where a five-year, \$8 million strategy was designed by the TBCTA, the national TB program, and the USAID Mission. Annual work plans have been prepared easily, reflecting the availability of USAID incremental funding and implementation progress to date.

The work plan process, while important, often has been overly laborious and time-consuming for at least two reasons. First, multiyear (or life-of-project) strategies or work plans have rarely been prepared. The USAID agreement with TBCTA specifically requires annual work plans be approved by the cognizant technical officer (CTO). This has been interpreted by operational

⁶⁹ WHO reports that since the recruitment of an international consultant in El Salvador, activities have been implemented in a timely fashion.

⁷⁰ Also, a major study of TB in Eastern Europe, requested by the E&E Regional Bureau in November, 2001 has never been satisfactorily completed. The request was made to KNCV, not to the TBCTA. Therefore, according to KNCV, the participation of WHO and CDC in the study was not permitted.

personnel to mean that, even if a long-term strategy has been approved, annual work plan approval by the CTO is still necessary. Second, work plans have often been reviewed and approved ad seriatim. The normal process has been that work plans are prepared by the TBCTA with the national TB program and submitted to the USAID Mission for approval; then, once approved, they are forwarded to USAID/Washington for comments, changes, and eventual approval; then they are sent with any changes to TBCTA for its final approval at the next quarterly board meeting. This process could be significantly shorted to only one or two days if, as recently occurred in Egypt and Nigeria, a TBCTA representative, the national TB program, a USAID/Washington staff person on temporary duty, and the USAID Mission would all meet to review the work plan. If the USAID/Washington official could not travel to the country in question, that person's inclusion in the deliberations via speakerphone would normally also be feasible.

TBCTA expenditures may not begin simply because a work plan has been approved. Once the board approves a work plan, the lead partner must submit to the PMU a detailed request for funding. The PMU then requests a funds transfer from USAID/Washington for the work plan, unless sufficient pipeline funds are already available. Once USAID/Washington provides an allotment of funds to the PMU, these funds are eventually transferred to the lead partner's headquarters. The partner then may spend the funds from the headquarters as appropriate, or it may transfer the funds to a local partner (e.g., the KNCV office in Indonesia; the Pan American Health Organization (PAHO) office in Brazil) or to an executing partner (e.g., the Ligue Nationale Antituberculeuse et Antilepreuse du Congo in D.R. Congo). This last step has proven difficult for WHO and PAHO in both Brazil and Haiti, in part because WHO funds must pass through PAHO/Washington before they are re-allocated to a country PAHO office.⁷¹ Funds for all major international commodity procurements are not transferred to the lead partner by the PMU, but are transferred to a procurement subcontractor that is familiar with USAID regulations. Delays can occur and often have occurred at any stage of this lengthy chain of events. Half of participating USAID Missions reported significant delays in TBCTA performance; however, almost all participating Missions also indicated that TBCTA performance had improved recently and said they hope to continue to use TBCTA services.

Program management is often identified by USAID Missions as being related to a lack of TBCTA in-country presence. In most countries, TBCTA partners do not have local offices (the exceptions are the traditional WHO (and PAHO) offices in all of the TBCTA "lead" countries, and the new KNCV office in Indonesia). For other countries, problem-solving or trouble-shooting support must come from the partner's headquarters or from the PMU, neither of which has excess personnel for short turnaround visits. KNCV headquarters finally agreed to the need for a KNCV

⁷¹ WHO indicates that the problem in Brazil was the eventual transfer of funds to the Municipality of Rio de Janeiro.

office in Indonesia after a year of requests from USAID/Indonesia, which had allocated the large sum of \$5 million to TBCTA. This model should be closely evaluated by TBCTA to determine its effectiveness. In theory, it should provide: (1) much closer monitoring of TBCTA/USAID funds, especially those funds that flow down to provincial and district health programs, (2) more timely problem identification and resolution, and (3) more timely reporting and communication to USAID. The annual cost of this office and its four staff is approximately \$82,000 excluding the costs of the expatriate staff director.⁷² This cost is shared between USAID, CIDA, and the Dutch Government—the three donors whose funds are managed by the local KNCV office.

Another option for onsite management of TBCTA resources at the country level has occurred in D.R. Congo, where funds are transferred to and managed by a traditional KNCV partner (Ligue Nationale Antituberculeuse et Entilepreuse du Congo), and yet another option is found by working through WHO/PAHO offices in the Latin America and the Caribbean region. For several countries (e.g., Brazil, D.R. Congo, Indonesia, and South Africa) significant amounts of money are being expended to expand provincial, district, state, or municipal DOTS programs. Monitoring the decentralized use of these funds will require careful and periodic oversight, which probably should include periodic trips by PMU personnel to complement the technical visits of TBCTA technical experts.

The willingness and ability of WHO to implement TBCTA in-country programs are still not certain. Although WHO/Geneva staff members are dedicated to supporting TBCTA implementation, in Brazil, the WHO/PAHO office director and staff have several times expressed reluctance to take on additional project management responsibilities for the TBCTA with the level of monitoring that is required.⁷³ Although WHO is not the lead agency in Indonesia, its leadership and staff have been reluctant until recently to add wearing the hat of a cooperating TBCTA partner to their traditional roles. WHO performance in Cambodia was disappointing, with a major 18-month delay in the WHO regional representative (based in Hanoi) following up to help execute a TBCTA work plan. TBCTA leadership has subsequently been transferred to KNCV. A similar 18-month delay occurred in finalizing a work plan in El Salvador. WHO performance in Haiti, prior to the present turbulence, was reported to be problematic by the USAID mission. However, in several other TBCTA countries, WHO has proven to be a very valued TBCTA partner as the most effective conduit for hiring additional national TB program or provincial staff members, using TBCTA funds from other partners.

⁷² These costs, approximately \$250,000 per year, are consistent with USAID estimates for placing contract long-term technical staff members in overseas posts.

⁷³ WHO indicates that, depending on the work load in its country offices, its country office staff cannot guarantee close monitoring of additional projects, such as TBCTA. This is why WHO often recruits national TB program officers (e.g., in Nigeria) or international TB medical officers (e.g., in El Salvador and Brazil) to help monitor these projects.

IV.B. Financial Management

IV.B.1. Systemic differences

Resolving the significant differences between the traditional financial and administrative management procedures of the European TBCTA partners (KNCV and the UNION) and USAID has been time-consuming and has only been gradually and partially resolved.⁷⁴ Some key examples of differences between American and European systems include: (1) timekeeping—weekly time sheets are not normally required in Europe; (2) consultant fees—KNCV traditionally has paid its cadre of senior consultants a fee based on each consultant’s salary history; however, to simplify TBCTA planning and budgeting, the TBCTA partners decided to use a standard daily fee for TBCTA activities (equivalent to approximately \$500/day); and (3) personnel policies—European NGO personnel policies are, in fact, a collaborative bargaining agreement negotiated between the NGO and its staff, within the context of standardized agreements between the unions and the working sector.

Differences among the TBCTA partners have also caused the following problems and delays: (1) attempts to agree on a common indirect cost rate for the project failed—the KNCV charges 110 percent on labor costs, while the UNION charges 22 percent on all project-related costs⁷⁵; (2) attempts to agree on a common text for TBCTA partner subagreements failed when it became apparent that WHO could not use NGO guidelines but should, rather, use its internationally established procedures⁷⁶; and (3) traditional travel regulations and per diem rates differed among the partners.

USAID’s inexplicable failure to conduct a pre-award survey of the TBCTA partners is generally acknowledged to have been a major reason why the partners only gradually became aware of their need to either change some of their traditional practices to meet USAID requirements or to request that USAID be flexible on some requirements. Problems were addressed individually and only when they became apparent to the USAID CTO or to the TBCTA.

⁷⁴ Efforts to resolve these issues have already proven beneficial in easing the startup of a new USAID grant to the UNION, and should prove useful for future USAID grants to European organizations (e.g., in Iraq and Afghanistan).

⁷⁵ USAID regulations allow for indirect costs to be calculated in four ways, including the two chosen by TBCTA partners.

⁷⁶ This was also agreed to by USAID, although only after a lengthy delay in transferring TBCTA funds to WHO.

IV.B.2. Staffing and systems

The TBCTA realized the need for a full-time financial director for the PMU, and this person (a seasoned specialist but with no USAID project experience) began in September 2001.⁷⁷ Presently, the PMU includes this person and one assistant financial administrator. The UNION has hired one full-time person to manage and monitor TBCTA funding and expenditures, whereas a WHO staff member dedicates part of her time to all TBCTA activities.⁷⁸

The financial tracking system at KNCV is considered old and has difficulty segregating and reporting on the complexity of TBCTA funding (i.e., 20 difference sources of USAID funds; transfer of funds to four primary TBCTA partners and to subgrantees). The continuing difficulty with this system is evident from the nature of the most recent PMU financial reports, which appear in Annex C. The UNION, in contrast, has just completed an upgrade to complete its financial management system (at a cost of approximately \$50,000).⁷⁹

IV.B.3. Financial reporting

Despite PMU efforts, some TBCTA partners have not provided complete financial reports in a timely fashion, which complicates the ability of the PMU to provide simple, straightforward reports to USAID. USAID presently requires a quarterly expenditure report and six month financial report. WHO, however, provides reports only on a six-month basis, which complicates this process due to its status as an United Nation agency. The financial reporting format and accompanying narrative established by the PMU meet USAID's basic requirements, but leave the USAID/Washington CTO and officers in the 19 other contributing USAID Missions and offices with uncertainties and questions. Clear and detailed semiannual financial reports are particularly important because the TBCTA is not required to send any additional country-specific financial reports directly to USAID Missions or regional offices. USAID Missions and regional offices must rely on the financial data provided in the semiannual reports. Some changes to be considered are these:

- Not all funds included in the “transferred to partner” column have indeed been transferred to a partner. Funds for all international commodity procurement, except for the UNION, are transferred to the TBCTA procurement subcontractor. In recent reports,

⁷⁷ The PMU financial staff at one point wrote to USAID to ask for “the USAID definition” of core costs and attributable costs.

⁷⁸ ALA and ATS involvement is too small (approximately \$150,000 and \$100,000, respectively) to require additional financial management staff. CDC does not receive funds via the TBCTA.

⁷⁹ KNCV's decision not to upgrade appears to reflect a general unwillingness to make organization-wide changes because of the singular exigencies of a single new donor (USAID) whose duration as a donor was (and is) uncertain.

some funds that had been “transferred” to WHO had actually been transferred to the procurement subcontractor.

- Accrued expenditures (in addition to actual expenditures) are not estimated.
- Planned expenditures for the next reporting period are not indicated.
- Until January 2004, there had been no discussion of the program pipeline or an estimate of the “burn rates” for USAID funding.

IV.B.4. Cost sharing

Based on the TBCTA proposal, the cooperative agreement requires \$5 million in cost-sharing over the life of the program. TBCTA has not yet reported any such cost-sharing, in part because of uncertainty on what items would be accepted by USAID as cost-sharing and because it was believed that the reporting need only be performed by the end of the grant period. WHO has offered to provide the evidence of cost-sharing in relation to its “lead” activities, many of which are funded by several sources. A quick review indicates that there is no doubt that TBCTA will meet (and can exceed) the \$5 million cost-sharing target. However, the absence of periodic reporting on progress in meeting this goal unnecessarily raises questions among USAID managers.

IV.B.5. Transferring funds

The process for moving funds through the TBCTA system appears to be unusually slow and cumbersome. The delays that accompany this process account for some of the delay in carrying out country work plans. USAID and TBCTA financial managers should review opportunities for simplifying this process.

As noted above, WHO has had a particularly difficult time moving funds expeditiously through its PAHO/Washington office to PAHO/Brazil,⁸⁰ and expending funds via PAHO/Haiti.

⁸⁰ A final version of the work plan was approved more than two years after the State of Rio de Janeiro submitted an initial work plan to USAID/Brazil. WHO transferred an initial \$50,000 to PAHO/Washington in August 2003, which eventually transferred these funds to PAHO/Brazil. Despite pleas from Rio TB officials, PAHO/Brazil decided it needed to close its financial ledgers before the holiday season. As of February 2004, the funds had not been retransmitted to PAHO/Brazil or to the Rio program. Meanwhile, the Rio TB program director resigned in frustration (per a team interview). When the evaluation team was in Brazil in January 2004, the whereabouts of the funds for Rio were a mystery. PAHO/Brazil, incorrectly, indicated to the team that all funds had been returned either to PAHO/Washington or to WHO headquarters. WHO comments on the draft version of this report state that the WHO funds never left Brazil.

IV.B.6. Financial monitoring

The most vulnerable elements of the TBCTA program and financial management system are: (1) transferring funds to sub-grantees, such as the “Ligue” in D.R. Congo, and (2) transferring funds to provincial or district government bodies to pay for local cost activities (e.g., training courses, travel costs, supervision visits), as in Indonesia. The KNCV office in Indonesia plans to monitor these expenditures closely; and financial/administrative procedures have been formalized in the form of a manual. District and provincial officials can receive their monthly funding allotments only after receipt, review, and acceptance of their accounting documents for the previous month. However, in countries without a local TBCTA partner office, financial monitoring will be less frequent and will require periodic monitoring and inspection visits from the TBCTA partner’s home office or from the PMU.

IV.B.7. Audit

The first (annual) audit of TBCTA is behind schedule and has not yet been completed. The audit process for the TBCTA is complex, because both ALA and ATS do not require an audit (because they expend less than \$300,000/year), whereas WHO follows its standard practice as an international organization of being audited once every two years.

KNCV did undergo an external audit from a USAID-certified European firm in 2003; however, the UNION was not audited in the same period.⁸¹ USAID took the unusual step of requesting a USAID audit of the TBCTA (by the Defense Contract Audit Agency) in February 2003, and the draft audit report was issued in September 2003. The audit remains incomplete due to the absence of a subcontractor audit report from the UNION. The one significant finding of the draft report is that TBCTA/KNCV consultant fee charges totaling approximately \$1,200,000 are “unsupported due to a lack of timekeeping system.” KNCV and UNION have both now instituted new timekeeping systems for TBCTA (KNCV from January 2003 and the UNION from January 2004).

IV.B.8. TBCTA cost recovery

Exchange rate fluctuations. The increasing weakness of the dollar in relation to the euro over the past 18 months has clearly affected TBCTA’s ability to recover the costs of TBCTA program operations. The TBCTA proposal budget assumed a 1:1 exchange rate between the dollar and the euro; the rate when this report was written was 1:1.3, a 30 percent decrease in the value of the dollar in relation to the euro. Therefore, the PMU indicates that it presently bills consultant costs to USAID at the rate of \$1,050 per day (including indirect costs); while their true costs are approximately \$1,700/day.

⁸¹ The UNION states that when it approached the only USAID-approved audit firm in France, they were first told that no personnel were immediately available, and subsequently were quoted a very high price. No funds had been budgeted for the audit.

Charging indirect costs to Mission-funded programs. TBCTA has shown its inexperience with complex USAID programs, until recently, by expending USAID Mission funds without charging those Missions an indirect cost fee. More recent Year 4 Mission budgets now include an indirect cost line item.

IV.B.9. Pipeline

The TBCTA has been overwhelmed with the level of USAID Mission funding already obligated into the cooperative agreement. The level of core funding (approximately \$3 million/year) has been obligated at planned levels, but the high level of USAID demand for TBCTA services has required USAID/Washington to raise the program ceiling by almost 50 percent, from \$28.6 million to almost \$44 million. As noted above, especially in the first year of the program, some USAID Missions quickly obligated end-of-year TB-earmarked funds into the agreement without having first performed a careful joint review with TBCTA of the estimates of work plan costs.

While TBCTA expenditures rates are growing with TBCTA's experience, as of February 18, 2004, the pipeline remains unusually high (see Annex C): \$30.1 million has been obligated into the agreement (the most recent obligation in September 2003). Core funding obligations have totaled approximately \$12.7 million, whereas field Mission and regional office buy-ins have contributed \$17.345 million, or about 58 percent. Eighty-eight percent of the obligated funds are earmarked for approved TBCTA work plans, whereas only 57 percent (\$17.3 million) has been transferred to TBCTA partners. Total expenditures were only \$9.545 million, about 32 percent of the funds obligated. Therefore, the total pipeline is approximately \$22 million, of which approximately 20 percent consists of core funds and 80 percent is Mission funds.

The burn rate for the past six months has increased to approximately \$1 million/month (a breakdown is not available in PMU reports to delineate the burn rates of core and Mission funds). The highest ratios of expenditures to obligations occur in Indonesia, Malawi, the Latin America and the Caribbean Region, D.R. Congo, and Dominican Republic (where at least 30 percent of obligations have been expended). TBCTA estimates that program expenditures will increase significantly during the remainder of original grant period (through September 2005).

Unfortunately, actual and estimated burn rates for each country and regional office were not available until late January, 2004 when a meeting in The Hague with PMU, KNCV, the UNION and WHO focused on the pipeline issue and an estimate of the 'burn rates' for USAID funding. Minutes of the meeting were then shared with the evaluation team and distributed in the board meeting, February 2004.

IV.C. Reporting

The TBCTA is new to the expectations of reporting to USAID, and several improvements are desirable.

First, timing must be improved. TBCTA reports have been late, or worse, nonexistent. No annual report for Year 1 of the project was submitted because the USAID CTO accepted the quarterly reports as adequate reporting. At the request of the second CTO and in accordance with the cooperative agreement, a combined report for Years 1 and 2 was eventually submitted in November 2003. The Year 3 annual report is still in draft form four months after the end of the calendar year. Presently, the CTO requires only that TBCTA submit annual reports. Quarterly reports are no longer required.

Second, the content of performance reports does not meet USAID expectations and does not show the work of the partnership in its best possible light. Performance reports have largely listed a series of activities such as consultancies and training courses carried out by the TBCTA. USAID expects, however, that reporting be “results focused.” Project inputs can, of course, be delineated, but should be placed within the context of outputs and the expected outcomes. Also, the TBCTA reports have focused almost exclusively on the USAID-financed inputs and have not explained how these inputs combine with other actions (by Global Fund and GLC, and complementary activities by the host government or other donors) to lead toward program objectives that are normally shared by a national TB program and TBCTA.

Finally, the TBCTA reports have not met the needs of USAID Missions. The grant agreement does not require separate TBCTA reports to each participating USAID Mission. Most Missions complain that they see almost no reporting on TBCTA activities in their country.⁸² Typically, a one-page country summary is prepared as an annex to TBCTA reports. This level of detail is far less than expected by Missions that may be contributing \$1 million/year for TBCTA activities, and which must report to USAID/Washington annually on the progress of their health portfolios.

Reports within the TBCTA system, as much as possible, should be coordinated with reporting within national TB programs. Ideally, national programs would produce quarterly and annual progress reports to their own Ministry of Health, which would also fulfill many of the needs of the different donors and collaborators.

⁸² Lengthy TBCTA reports do not typically include a discussion of TBCTA-specific program progress or TBCTA-specific financial reporting, nor do they include semiannual national TB program assessments.

IV.C.1. Information sharing

The TBCTA has done little to prepare documents that share the positive (and negative) results of their work within the TBCTA system or with other TB entities outside of TBCTA. For example, a very creative and effective ten-page illustrated brochure designed by a TBCTA-funded Indonesian staff member in Central Java has not yet been reprinted and made available throughout Central Java or elsewhere in Indonesia.⁸³ Similarly, a well-conceived supervisory journal from Indonesia that links traditional TB reporting with management decision-making could be replicated for use elsewhere in Indonesia and perhaps adapted for broader use in other countries. A first step in such information sharing has been the introduction of a periodic TBCTA newsletter, but thus far these newsletters have had a very limited purpose and limited circulation.

IV.D. USAID Management

IV.D.1. Program design

USAID was not formally involved in the design of the TBCTA program, but instead it responded to an unsolicited proposal prepared by the TBCTA. Nevertheless, some farsighted USAID officers played several key roles by:

- anticipating the need for a TBCTA-type mechanism to provide high-level technical support to USAID/Washington and to USAID Missions when the U.S. Congress began to earmark health funds for tuberculosis in FY 1998
- supporting the novel concept of a partnership modality to provide this assistance, where the best talent would be pooled rather than divided through a series of smaller grants to individual entities
- supporting the unusual implementing mechanism (for USAID) of making a grant to a European NGO as the lead entity of the partnership
- recommending a retired USAID health officer to assist the TBCTA in the design of their proposal

Once the initial TBCTA proposal was submitted to USAID in early 2000, USAID responded quickly and positively with a few programmatic suggestions, such as including a component for training additional TB consultants, along with several questions regarding the proposed budget and management structure. A revised proposal was submitted on June 23, 2000, and was rapidly approved. The USAID Office of Procurement was asked to prepare and sign a collaborative agreement with the TBCTA prior to the end of the fiscal year (September 30).

⁸³ The TBCTA staff says that funds are not available to reprint the brochure.

Unfortunately, at this stage of the “design” process, USAID officers made a series of errors that had significant negative effects on program performance. These mistakes and omissions would probably have been recognized quickly by an organization with substantial experience working with USAID. However, this new USAID recipient did not recognize many of them, nor were the mistakes immediately recognized by the program’s USAID CTO, a recently hired TB specialist who was herself new to USAID regulations and procedures.⁸⁴ These mistakes and omissions, finally, were also not identified by supervisors or clearance officers in the Global Health Bureau or in the Office of Procurement. Mistakes and omissions include the following:

1. The procurement officer did not order a preaward survey of grantee administrative and financial procedures and capacity. This standard step for any new USAID grantee would probably have immediately identified (and suggested ways to resolve) many of the administrative and financial management differences between European and U.S. (e.g., USAID) systems that plagued the early years of the program.⁸⁵
2. The procurement code for this grant to a European-led partnership was inexplicably “U.S. only” (Code 000), even though it explicitly anticipated subgrants to other European organizations (i.e., the UNION) and to an international organization (WHO). This was only corrected with modification #7 on July 15, 2002, when Code 935 was approved for procurement of technical services and for subagreements with non-U.S. recipients.⁸⁶ However, Code 000 still remains in effect for procurement of commodities and equipment, which has led to a series of time-consuming waiver requests for laboratory equipment, microscopes, and vehicles.
3. The indirect cost rate was mistyped or miscopied as 1.01 rather than the 1.10 clearly stated in the TBCTA proposal. Consequently, the total ceiling for the five-year grant was miscalculated in the original agreement. This was corrected in modification #2 on May 22, 2001, and the total award level was increased from \$26,012,288 to \$28,161,573.
4. Several important USAID standard provisions for a cooperative agreement were omitted from the award document. The TBCTA partners were not formally aware of many key USAID requirements.
5. The cooperative agreement provided no guidance to the TBCTA on the programmatic and financial management of USAID Mission funds that were anticipated to make up more than 50 percent of the program ceiling. The grant language did not prepare the TBCTA for the

⁸⁴ Although the Congress had begun earmarking funds for TB in FY 1998, USAID hiring restrictions made it impossible to hire a TB specialist until two years later, when a new hire came on board.

⁸⁵ USAID has apparently learned this lesson. A new health grant to the UNION in September 2003 was preceded by a preaward visit by a USAID officer that “was exceedingly valuable” in identifying and resolving administrative and financial issues, according to the UNION.

⁸⁶ The change in the procurement code from 000 to 935 (Free World) was written in a way that its effect was retroactive to the effective date of the cooperative agreement (e.g., any Code 935 procurement from the beginning of the agreement period was acceptable).

wide range of Mission-requested assistance that would be requested—well beyond the scope of assistance anticipated by the TBCTA in its proposal.

6. Finally, the CTO and her office in the Bureau of Global Health were unable to obtain a copy of the cooperative agreement from the Office of Procurement until nearly six months after the agreement had been signed.

IV.D.2. Program execution—contract and financial management

USAID's performance in facilitating the work of the TBCTA was technically strong (see below), but inadequate on administrative and grant management issues. Problems were not foreseen and resolved early in the grant period, but were addressed one-by-one as they surfaced. Problem resolution was typically quite slow. TBCTA proposals and requests seemed to receive little priority in USAID/Washington. The first set of sub-agreements among the TBCTA partners was transmitted to USAID in the spring of 2001 (about six months into program implementation). Responding to USAID concerns and questions, they were resent in October 2001 and January 2002, and were not approved by USAID until July 2002.⁸⁷

Problems that were gradually identified and slowly resolved include: (1) use of U.S. Government or United Nations per diem rates for travel (U.N. rates were eventually approved); (2) use of U.S. Government or grantee travel regulations (grantee travel regulations were accepted, with the variation that U.S. carriers should be used, whenever possible); (3) ceiling for consultant daily fees (USAID incorrectly advised TBCTA that it must abide by the ceiling for USAID contractors—there is no such ceiling for grantees if the fee can be justified⁸⁸); (4) timekeeping procedures for employees (USAID has required that the partners adopt weekly time sheets—a practice not typically used by European NGOs for salaried employees—this practice was instituted in January 2004 by KNCV and the UNION); (5) use of a standard daily fee of \$500 for consultants (USAID has not accepted this standard practice by KNCV and the UNION and is requiring a salary history and individual rate for each consultant).

USAID resolution of many of these issues was slow, and sometimes (in points 1–3 above) the verbal advice provided was initially incorrect. Communication between the USAID CTO and the USAID/Washington procurement, financial management, and legal offices appears to have been

⁸⁷ USAID had some legitimate issues concerning the subagreements (e.g., eventually WHO was not required to follow the same procedures as other TBCTA partners, and its subagreement reflects its status as an international organization and the use of procedures of public international organizations). The issue is slow responsiveness by USAID/Washington and the absence of clear communication with TBCTA.

⁸⁸ The basic differences between USAID contract and grant regulations also elude other U.S. Government entities. The Defense Contract Audit Agency's draft audit of KNCV, dated September 15, 2003, consistently refers to the USAID grant to TBCTA as a contract. Happily, however, the Audit Agency indicates its audit review applied the standards from Office of Management and Budget regulations for nonprofit organizations.

very limited, especially in the first two years.⁸⁹ The procurement officer responsible for the grant changed repeatedly over the first two years, making continuity difficult.

The grant has also been burdened by the delays inherent in preparing and processing procurement waivers, especially for microscopes, laboratory equipment, and vehicles. Unfortunately, procurement authorities would not approve a blanket waiver for microscopes and laboratory equipment that would have covered all anticipated needs through the life of the grant, so individual waivers have been laboriously processed.⁹⁰

IV.D.3. Coordination of field support funding

The TBCTA partners, as noted above, were initially surprised at the broad scope of USAID Mission requests for TBCTA assistance (especially commodity procurement, and local cost expenditures for salaries and provincial/district activities). The CTO and other USAID/Washington officers (e.g., health officers in regional bureaus) publicized the new grant through e-mails, phone calls, and country visits as a ready mechanism to help USAID Missions decide how to use their new TB funding. Especially in the grant's first year, USAID Missions sometimes transferred substantial funds into the TBCTA (e.g., Senegal) without prior discussion with TBCTA on a budget. These Missions assumed (and apparently were not disabused by USAID/Washington) that the TBCTA agreement was structured like a traditional USAID/Washington "flagship" grant (e.g., BASICS for child survival and Partners for Health Reform *plus* for health reform). Despite these surprises, TBCTA never refused to accept any proposed Mission funding, although in Senegal, it strongly disagreed with a key component of the USAID proposed work plan and eventually convinced the Mission to delay a community support component.

Communication between USAID/Washington and Missions regarding the new TBCTA was reported to be good on technical matters, but very limited on administrative matters. Most Missions report that communication from and with USAID/Washington regarding TBCTA is adequate, although a few describe USAID/Washington as proactive and helpful in resolving problems (e.g., Haiti), whereas others report an absence of good communication and delays in problem resolution (e.g., El Salvador).

Due probably to Mission staff turnover, several USAID Missions report that they have limited information about the TBCTA program. Unfortunately, two TBCTA requests to make

⁸⁹ A KNCV letter dated October 31, 2002, justifying the actual KNCV indirect cost rate for Year 2000 was never acknowledged as received, nor was it formally accepted or rejected. The USAID response, to KNCV's surprise, was to initiate a long-overdue preaward audit in January 2003.

⁹⁰ An exception was a \$64,000 waiver that included the microscopes and laboratory equipment needed for five TBCTA countries (D.R Congo, Haiti, Malawi, Nigeria, and Senegal).

explanatory presentations at regional state-of-the-art meetings for health officers were not approved.⁹¹

CTO approval of annual work plans is one of the areas of “substantive involvement” formally written into the cooperative agreement. This has been interpreted to also include USAID/Washington review and approval of annual work plans for each participating USAID Mission or regional program. Thus, in the absence of multiyear strategies or work plans, up to 18 work plans each year require USAID/Washington review and approval. This review process has generally been handled efficiently, but there have been major delays in work plan approvals for Brazil and D.R. Congo. Work plan preparation and approval have best been accomplished when representatives from TBCTA, USAID/Washington, the USAID Mission, and the national TB program work together in the host country, as has occurred in Egypt and Nigeria.

In 2003, a more experienced USAID officer with field experience was appointed as CTO. Her previous experience and her interest in problem-resolution for management and program issues are reported by TBCTA to have made a major difference in just a short period of time.

IV.D.4. Program execution—technical management

The quality of USAID technical management of the TBCTA collaborative agreement has consistently been excellent, in contrast to the contract and administrative management. From the initiation of the program, USAID technical officers have participated in TBCTA country advocacy visits and as contributing members of the TFT. TBCTA views USAID/Washington comments on annual work plans as being very helpful. TBCTA is pleased that USAID has not forced a particular technical philosophy upon the TBCTA. USAID technical officers in Washington and in Missions have accepted the TBCTA philosophy of subordinating a “USAID TB strategy” within the international framework of the Stop TB Alliance and, in individual countries, within the national framework of the national TB program. The two USAID CTOs and other members of the USAID/Washington technical team have, however, pushed the envelope by encouraging the TBCTA to focus some attention on new topics and new program activities. Examples include USAID’s suggestion, in response to the first TBCTA draft proposal, to include a project component to increase the number of international consultants (the junior consultant program), a topic that other donors had refused to fund in the past. USAID has supported the establishment of a new management-training course for TB managers and support networks for nurses working primarily in TB.

⁹¹ USAID reports that these requests were not approved due to overall limitations on the time devoted to TB at the state-of-the-art meetings and USAID’s general reticence to have implementing partners present their programs at such meetings.

USAID/Washington managers have been strong advocates of the TBCTA program with USAID Mission personnel. They have aggressively encouraged TBCTA to make initial advocacy visits to a wide variety of countries, including some countries where the USAID Mission subsequently decided not to include the TBCTA in its country program (e.g., India, Philippines and Uganda).

IV.D.5. Collaboration with partners

The purpose statement in the TBCTA proposal included a goal “to strengthen the Coalition of partners to more efficiently and qualitatively work together in their collective efforts to reduce TB.” Aside from the “partners” included in the Stop TB Partnership and host countries, these partners are the other entities that make up the USAID-funded TB portfolio in Washington (RPM+, three TASC II TB organizations), and the USAID-funded TB portfolio in each Mission where TBCTA works.

USAID offices and Missions, as the funding entities, also have a traditional role to play in facilitating collaboration among their partners. Thus, USAID/Washington has encouraged and facilitated positive interaction between TBCTA, the RPM+ Project, and the three TASC II contractors. Little appears to have been done, however, to link TBCTA more closely with USAID/Washington-funded HIV/AIDS program contractors and grantees.

Although some USAID Missions use only TBCTA for all TB-funded activities, most have funded a gradually broadening portfolio of at least two to four organizations (often RPM+ for drug management and local institutions for BCC or for community participation activities). One standard operating practice for most Missions is to bring their portfolio “partners” together at least once or twice a year under the USAID aegis. These meetings would not replace or substitute for meetings that a national TB program should normally organize each year with all its partners, but would focus on ensuring that USAID partners were complementing each other well within the context of USAID Mission health sector objectives and had a common understanding in technical issues. Although evidence is light, these USAID portfolio meetings do not seem to be occurring as regularly as one might expect, and there is little indication that USAID Missions have aggressively tried to link TBCTA to USAID-funded HIV/AIDS implementing organizations.

IV.E. Conclusions

IV.E.1. TBCTA management

In the beginning of the TBCTA program, the TBCTA internal structure had major adjustment problems, but it has functioned surprisingly well for such an eclectic coalition of international and national organizations, and European and U.S. NGOs. Some major problems (i.e., transferring funds through the WHO/PAHO structure) remain unresolved. TBCTA personnel are still learning USAID procedures and USAID expectations. The PMU has not been sufficiently exigent in

monitoring the responsibilities of the partners. TBCTA management of core funds is reasonably good, but efficient management of USAID Mission funds has been significantly below Mission expectations. The evaluation team has prepared several recommendations for which improvements in TBCTA internal efficiency are quickly needed and for which program and financial reporting need to be improved.

IV.E.2. USAID management

Initially, USAID management of this grant was inadequate to foresee and to resolve serious grant management issues (Global Health Bureau) and inept regarding procurement matters (Office of Procurement). For both offices, supervision was neither sufficient nor adequate to avoid or to address these problems in a timely fashion. USAID's procurement office has been slow to respond in resolving these problems, despite an effective CTO. On the other hand, USAID technical management of the program has been consistently strong. Technical management has suggested and supported positive and innovative initiatives.

V. Recommendations

V.A. Recommendations for the Remainder of the Grant Period

V.A.1. Programmatic recommendations

1. After a thorough internal program review and pipeline analysis, TBCTA should request a grant extension of at least one year to make up for the first “lost” year of program operations and to allow more complete achievement of program objectives. A USAID response needs to be provided quickly, but no later than June 2004.
2. TBCTA and USAID should determine what additional field support funds can be reasonably accepted into the program, given the existing pipelines and the present (or extended) grant period. USAID Missions should be advised as soon as possible to facilitate final Fiscal Year 2004 decisions on the use of field support funds.
3. TBCTA country work plans normally should not require annual USAID/Washington approval if they are based on approved medium-term development plans and if adequate funding is available. USAID Mission approval should be sufficient. TBCTA should ensure that all its senior consultants are fully informed of the menu of services and activities that TBCTA can provide for use in country work plans.
4. TBCTA should be proactive in identifying good models and locales for TB and HIV cross-referral and coordinated treatment related to the President’s Emergency Plan for AIDS Relief and the WHO 3×5 Initiative. The TBCTA has an excellent opportunity to play a more assertive leadership role by giving this objective a higher priority and facilitating a process involving WHO, CDC, and the UNION during the remainder of the grant period. The TBCTA should indicate a focal point for TB-HIV activities issues.
5. The Advocacy Task Force should respond aggressively to address identified needs (adherence to DOTS and multi-drug resistant TB in Brazil, and private sector involvement and budget increases in Indonesia).
6. TBCTA-funded technical assistance that might be provided in concert with the recent Intensified Support and Action Countries Initiative should be carefully designed to avoid undercutting low-paid national TB program staff, and to ensure sustainable improvements.

The evaluation team offers these additional recommendations:

7. TBCTA and USAID should review the lengthy process and many steps between work plan preparation and funding allocations to a country program with the objective of reducing the lengthy time taken to date (e.g., all key parties could meet simultaneously to discuss and approve a new work plan, such as occurs in Brazil).

8. Consultants' half-yearly reports could be more related to the objectives of the national TB programs. The technical assistance could also stimulate further the routine reporting by a national TB program to the upper levels of the Ministry of Health with copies to donors, which would cover some parts of consultants' travel reports.

9. Given the increasing concern of global multi-drug resistant TB, TBCTA should raise the issue of direct supervision and seek modifications to reduce the risk of producing multi-drug resistant TB.

10. The program to train junior consultants should be carefully evaluated before being expanded. Experienced personnel leaving national TB programs should be considered as candidates to receive further training as consultants who could also do the work as part-time consultants besides working at central level in their own national TB programs. Their curriculum should be adjusted to the current needs that are more diverse than they were before.

11. Operational research should have as its main focus to build up research capacity in the country, as much as possible within and involving a national TB program.

V.A.2. Implementation, monitoring, and reporting recommendations

12. The PMU needs to play a more assertive role in ensuring timely implementation by all partners. This should include administrative monitoring visits where TBCTA programs include significant provincial and district activities.

13. TBCTA program reports should be focused on results rather than on activities. More in-depth country annexes should be provided directly to participating USAID Missions to meet their monitoring and reporting needs. TBCTA should strengthen its practically nonexistent monitoring and evaluation system and should quickly finalize process indicators to help measure project progress.

14. Financial reports provided to USAID/Washington (and to USAID Missions) would be much more useful if they were more timely and were expanded to include accrued expenditures and expected expenditures for the next reporting period.

15. The PMU should gather “lessons learned” and models of program success, and disseminate them through various means throughout its program network, to USAID, and to other key TB entities.

16. To ensure effective coordination, USAID Missions should organize periodic meetings of all its TB-funded implementing agencies. In some cases, these meetings should include USAID’s key HIV-funded implementing agencies.

V.B. Key Recommendations Beyond the Grant Period

USAID role. USAID has now entered the TB arena and, with core and field support funds, has begun to finance programs and activities that are widely respected because they fill important gaps, provide added value, and add a major stimulus to the Stop TB initiative. USAID should continue to be a major bilateral TB program donor, probably through the Millennium Goal period (2015).

Constraints to DOTS expansion—core-funded activities. There will continue to be a strong demand for the primary core-funded activities financed via TBCTA to provide essential, complementary support to expanding field programs funded via the Global Fund, USAID, CIDA, and TB-HIV initiatives. Significant constraints to DOTS expansion are addressed through these activities that include program coordination, especially linkages to the Global Fund, GDF, and GLC; international and regional training programs to greatly expand the TB capability in least developed countries for program leadership, planning, research and management, and operational research; establishing nursing and other provider networks; preparing advocacy tools; stimulating private sector involvement with and adherence to DOTS; and encouraging appropriate social mobilization models. Increased attention should be placed on developing effective TB-HIV program coordination, multi-drug resistant TB, private sector involvement, and social mobilization.

Constraints to DOTS expansion—Mission-funded activities. In countries with at least moderately strong public health systems (i.e., those in South and Southeast Asia, and in Latin America and the Caribbean), the constraints to the expansion of DOTS can be addressed in five to eight years with a national and provincial program that is similar to the TBCTA program in Indonesia. This package of USAID-funded assistance can be implemented at the national level and in a few provinces. The “capital” that needs to be invested typically includes: strategic planning; improved data collection systems as key elements of a monitoring and evaluation program; an upgraded laboratory network; a well-organized and well-funded domestic in-service training program; and finally, increased human resources, mobility, and funding for improved supervision. Additional elements of the program should include working with the private sector providers of TB services, coordination with HIV programs, and advocacy to increase host country

funding. The model, once recognized as effective by the host country, can be used for Global Fund and other donor-assisted provincial TB programs—as it is in Indonesia.

In countries with weak public health systems (i.e., Haiti and most African nations), the constraints to DOTS expansion are more intractable, and will require a longer time frame (at least through 2015), greater numbers of consultants to provide long-term technical assistance, and significant donor support for local cost financing. In some countries, “capital” investment for DOTS will need to flow to faith-based health service systems, other NGOs, and via broad donor-funded rural health initiatives (e.g., SANRU in D.R. Congo), as well as through the public health system. Experience in several African countries demonstrates that a strong TB program can be mounted and can be effective despite the serious systemic constraints that these countries face. In most of these countries, a stronger link to HIV activities will be appropriate. A key issue is the gradual assumption of local cost responsibility for TB programs by the host government, which probably should be addressed as part of sector-wide health reform/health financing improvement efforts by the donors.

Country selection. TBCTA presently works in eight of the 22 high-burden TB countries, and in six other countries. USAID TB programs are occurring in some form in eight other high-burden countries. At present, only three high-burden countries with USAID Missions do not have some USAID-funded TB activity. Although the TBCTA partners have limited capacity, they already have worked in many of these non-TBCTA countries without USAID funding, often performing semiannual planning or monitoring visits. Unless TB earmarks are increased, USAID will probably need to select only a few additional countries where it can provide a substantial level of resources to have a significant impact, or where relatively modest USAID funding can leverage and provide support to a major Global Fund grant.

TBCTA is a unique structure, widely recognized as a positive model for international collaboration. Almost without argument, TBCTA includes the most experienced and respected experts in international TB available to USAID or any other donor. It would be difficult for USAID to find another major TB collaborating institution to carry out core-funded activities, international coordination, and strategic planning and monitoring for national TB programs at the present level of success.

TBCTA has been stretched to provide the wide variety of country-level program support that USAID Missions have requested. Managing major provincial-level or state-level programs and large commodity procurements has been particularly management-intensive. These efforts, not elements of TBCTA’s comparative advantage, have required a great deal of TBCTA management time. In the future, several models of field-level support might be considered:

1. **Core plus limited field support:** An agreement with a centrally funded entity with a statement of work that includes core-funded activities and allows buy-ins of field-level support to countries where the entity has been traditionally involved in program operations or where USAID plans to make major investments in TB. To increase on-the-ground program management capacity, the centrally funded entity might be encouraged to establish subgrantee relationships with one or two experienced USAID grantees or contractors, or with strong local non-TB NGOs, or both. These sub-grantees would establish national offices or use existing national offices, and would have primary management responsibility (but not technical) responsibility for field-level support where major provincial support is envisaged. Missions would use TASC II contractors or bilateral health program contractors or grantees for their other TB needs, especially those at the provincial and district levels.
2. **Core only:** An agreement with a centrally funded entity with a statement of work that is similar to the original TBCTA proposal. This would include continuation of TBCTA core-funded activities and would include the following services for USAID Missions: “advocacy visits”; semiannual senior consultant national TB program evaluations; training at international and regional courses for selected host country TB personnel; short-term technical assistance for program design, evaluation, or redesign; and short-term technical assistance for problem resolution.

Under this model, the centrally funded entity would not provide the following services to USAID Missions: commodity procurement, in-country training, and in-country provision of local costs for provincial and district supervision and operations. Instead, USAID Missions would be encouraged to use TASC II contractors or bilateral health program contractors for all of the services mentioned in the previous paragraph.

USAID management of a future program needs to recognize the international nature of the DOTS expansion effort, as well as its urgency. Similar to HIV/AIDS programs, some traditional USAID regulations should be relaxed (e.g., they should use Code 935 procurement), or they should be waived. In a few transition countries, such as D.R. Congo, an exception to USAID’s prohibition of salary enhancements should be considered.

Annex A: List of Contacts

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Annex B: Documents Reviewed

Contract Information

KNCV TBCTA Proposal, June 23, 2000
USAID Award Letter, September 28, 2000
Modifications to the Agreement (Nos. 1-10)

Work Plan Approvals, Executive Summaries

Field Support Brazil, 2001-2005
Field Support Cambodia, 2002-2005
Field Support Dominican Republic, December 2001
Field Support El Salvador, 2001-2005
Field Support Haiti, 2001-2005
Field Support Indonesia, 2002-2003
Field Support Malawi, 2001-2005
Field Support South Africa, 2002-2005
Field Support Egypt, 2003-2005
Expansion of NTP in Congo Year I, 2002-2003
Expansion of NTP in Congo Year II, 2003-2004
Plan for Expansion of DOTS in Senegal, 2002-2003
Regional Support Asia and Near East, 2001-2004

Annual Work Plans For Core Funding

Annual Plan of Activities Year 2
Annual Progress Report Years 1 and 2
Annual Plan of Activities Year 3
Annual Plan of Activities Year 3, Approved Cost Savings Proposals
Annual Plan of Activities Year 4
Annual Plan of Activities Year 4, Attachment (Financial Information)
Budget Core Funds FY 2004

TBCTA Board of Directors Meeting, San Francisco, May 15–16, 2001

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Annex 1: Action Points
Annex 2: Draft Standard Subagreement Template
Annex 3: Subagreement, WHO Template
Annex 4: Comments to Standard Subagreement and Subagreement, WHO Templates
Annex 5: Routing of TB Reports

Annex 6: Federal Assistance Websites

Annex 7: Short Progress Report, October 2000-March 2001

TBCTA Board of Directors Meeting, The Hague, August 27–28, 2001

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Annex 1: Action Points

Annex 3: Relationship between USAID Country Mission-Partners-PMU: Email

Communication between Paula Fujiwara, Peter Gondrie, and Nils Billo

Annex 4: Costing Definitions, Office of Management and Budget Circular A-122

Annex 5: Draft TBCTA Bulletin

Annex 6: Content Page Documentation

Annex 8: Short Progress Report, April 2001-August 2001

Annex 9: Monitoring Projects Reports

Annex 10: Annual Work Plan Year 2 (Draft), June 20, 2001

TBCTA Board of Directors Meeting, Paris, October 30, 2001

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Annex 1: Action Points

Annex 2: Budget Allocations

Second Draft Proposal of the PMU for the TBCTA Budget Year 2

TBCTA Board of Directors Meeting, Vancouver, February 28, 2002

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Explanation of Agenda

Annex 1: Action Points

Annex 2: Expense Report of TBCTA Partners Format

Annex 3: Request for Advance/Reimbursement Form

Annex 4: TBCTA Partner Financial Status Report Form

Annex 5: Proposal Form TBCTA-PMU

Annex 6: Schedule TBCTA Reports 2001-2002

Annex 7: Short Progress Report, September 2001-December 2001

Annex 8: Review of Country Activities, Debriefing Notes

Annex 9: January 2002 TFT Meeting Minutes

E-Mail from Claudette Powell to Peter Gondrie Regarding Allocable Costs (Vancouver 2002)

TBCTA Board of Directors Meeting, Atlanta, May 16–17, 2002

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Annex 1: Actions Points

Annex 2: Explanation for TBCTA/PMU Partner Request for Advance/Reimbursement Form

Annex 4: Short Progress Report, January 2002-April 2002

Annex 5: TBCTA Partner Payments

Annex 6: Questions of the TFT to the Board of Directors

Annex 7: TB Indicators of TBCTA Supported High Burden Countries

Annex 8: Schedule TBCTA Reports, 2001 and 2001

Annex 9: 2002 Consultant Rates

Annex 10: Budget Proposal Form

TBCTA Board of Directors Meeting, The Hague, August 12–13, 2002

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Annex 1: Action Points

Annex 3: Accountant's Report

Annex 5: Short Progress Report, May 2002-July 2002

Annex 6: Proposal Annual Plan of Activities, Year III

Annex 7: Monitoring and Evaluation

Annex 8: Schedule TBCTA Reports, 2001-2002

Annex 9: Minutes of the TFT Meeting, June 2002

Annex 10: TFT Checklist for Assessment of Proposals for TB Training and Education

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Inventory List of Equipment Form

PMU Calendar for Coalition Partners

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Attachment 1: Priority of Reviewed Project Proposals

Attachment 2: New Training/Education Project or Product Proposal Form

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Annex C: Financial Tables*

Table C-1. Financial Summary Report, Core Funding APA3 (August 4, 2003)

Coordinating Partner	Amount Allocated	Transferred to Partner	Expensed by Partner	Balance (Budget Transferred)	Balance (Budget Expensed)
PMU (Salaries)	1,048,517	345,707	498,668	702,810	549,849
PMU (Office Costs)	122,500	0	84,798	122,500	37,702
PMU Total	1,171,017	345,707	583,466	825,310	587,551
IUATLD Total	1,679,746	920,337	102,664	759,409	1,577,082
KNCV Total	628,465	130,070	997	498,395	627,468
WHO Total	925,999	231,881	202,168	694,118	723,831
ALA Total	100,480	0	0	100,480	100,480
ATS Total	172,380	68,750	0	103,630	172,380
Grand Total	4,678,087	1,696,745	889,294	2,981,342	3,788,793

*Source: TBCTA Board of Directors Meeting, August 11–12, 2003, The Hague, The Netherlands. All figures in U.S. dollars.

WHO financial data in this table are as of February 2003.

Table C-2. Mission Cumulative Funding (August 4, 2003)

Modification Number	Date of Modification	Coordinating Partner	Benefiting Area	Amount Pledged	Transferred to Partner	Expensed by Partner	Balance (Budget-Transferred)	Balance (Budget-Expensed)
5	9/2001	WHO/PAHO	Brazil	890,000	121,198	111,141	768,802	778,859
9	9/2002		Brazil	670,000	0	0	670,000	670,000
			Subtotal	1,560,000	121,198	111,141	1,438,802	1,448,859
5, 8	9/01, 8/02	IUATLD	Cambodia	253,900	16,412	16,412	237,488	237,488
			Subtotal	253,900	16,412	16,412	237,488	237,488
4	8/2001	WHO/PAHO	D.R. Congo	475,000	475,000	458,688	0	16,312
9	9/2002		D.R. Congo	579,000	446,500	0	132,500	579,000
Expected			D.R. Congo	400,000	0	0	400,000	400,000
			Subtotal	1,454,000	921,500	458,688	532,500	995,312
5	9/2001	WHO/PAHO	Dom. Rep.	270,000	70,848	43,734	199,152	226,266
			Subtotal	270,000	70,848	43,734	199,152	226,266
Expected			Egypt	765,000	0	0	765,000	765,000
			Subtotal	765,000	0	0	765,000	765,000
4	8/2001	WHO	El Salvador	499,000	426,494	48,388	72,506	450,612
			Subtotal	499,000	426,494	48,388	72,506	450,612
4	8/2001	WHO	Haiti	400,000	288,848	113,848	111,152	286,152
9	9/2002		Haiti	200,000	0	0	200,000	200,000
Expected			Haiti	200,000	0	0	200,000	200,000
			Subtotal	800,000	288,848	113,848	511,152	686,152
1	6/2001	KNCV	Indonesia	500,000	500,000	295,378	0	204,622
4	8/2001		Indonesia	500,000	500,000	0	0	500,000
8	8/2002		Indonesia	2,000,000	435,000	0	1,565,000	2,000,000
Expected			Indonesia	1,975,000	0	0	1,975,000	1,975,000
			Subtotal	4,975,000	1,435,000	295,378	3,540,000	4,679,622

Modification Number	Date of Modification	Coordinating Partner	Benefiting Area	Amount Pledged	Transferred to Partner	Expensed by Partner	Balance (Budget-Transferred)	Balance (Budget-Expensed)
4	8/2001	KNCV	Malawi	500,000	493,100	0	6,900	500,000
			Subtotal	500,000	493,100	0	6,900	500,000
8	8/2002		Mozambique	150,000	0	0	150,000	150,000
			Subtotal	150,000	0	0	150,000	150,000
Expected		WHO	Nigeria	1,076,500	0	0	1,076,500	1,076,500
			Subtotal	1,076,500	0	0	1,076,500	1,076,500
4	8/2001	IUATLD	Senegal	800,000	550,000	0	250,000	800,000
9	9/2002		Senegal	300,000	0	0	300,000	300,000
Expected			Senegal	300,000	0	0	300,000	300,000
			Subtotal	1,400,000	550,000	0	850,000	1,400,000
7	7/2002	KNCV	South Africa	300,000	171,184	151,582	128,816	148,418
9	9/2002		South Africa	500,000	0	0	500,000	500,000
Expected			South Africa	650,000	0	0	650,000	650,000
			Subtotal	1,450,000	171,184	151,582	1,278,816	1,298,418
			Total	15,153,400	4,494,585	1,239,172	10,658,815	13,914,228

Table C-3. Regional Cumulative Funding (August 4, 2003)

Modification Number	Date of Modification	Coordinating Partner	Area Benefiting	Amount Pledged	Transferred to Partner	Expensed by Partner	Balance (Budget Transferred)	Balance (Budget Expensed)
1	6/2001	IUATLD	Africa regional	150,000	71,928	71,928	78,072	78,072
4	8/2001		Africa regional	300,000	0	0	300,000	300,000
Expected			Africa regional	250,000	0	0	250,000	250,000
			Subtotal	700,000	71,928	71,928	628,072	628,072
5	9/2001	KNCV	E&E	235,000	235,000	235,000	0	0
			Subtotal	235,000	235,000	235,000	0	0
5	9/2001		ANE	275,000	0	0	275,000	275,000
			Subtotal	275,000	0	0	275,000	275,000
5	9/2001	IUATLD	LAC	244,500	244,500	174,282	0	70,218
Expected			LAC					
			Subtotal	444,500	244,500	174,282	200,000	270,218
4	8/2001	KNCV	REDSO	150,000	4,940	22,250	145,060	127,750
Expected			REDSO	195,000	0	0	195,000	195,000
			Subtotal	345,000	4,940	22,250	340,060	322,750
			Total	1,999,500	556,368	503,460	1,443,132	1,496,040
Region + Country Grand Total[†]				17,152,900	5,050,953	1,742,632	12,101,947	15,410,268

[†] Totals for Tables 2 and 3 combined.

Table C-4. Core Funding Financial Summary Report, Inception through December 31, 2003

Coordinating Partner	Budget	Transferred to Partner	Expensed by Partner	Balance (Budget Transferred)	Balance (Budget Expensed)
PMU		513,407	324,593		
IUATLD		2,194,233	1,019,653		
KNCV		3,131,653	2,562,363		
WHO		2,117,875	828,942		
ALA		28,163	28,173		
ATS		398,376	370,565		
Totals		10,048,536	8,383,707 (83%)[†]		

[†]Percent of budget transferred.

[‡]Percent of budget declared transferred. WHO data do not include Year 3.

Annex D: Training Courses Implemented Wholly or Partially Funded by TBCTA

- International TB Course, Arusha, Tanzania, November 2003, 2002, and 2001 (Africa Bureau)
- International TB Course, Nicaragua, June 2003, 2002, and 2001
- International TB Course, Hanoi, Vietnam, August 2003, 2002, and 2001
- International TB Course, Ho Chi Minh City, Vietnam, March 2003 (approx.) (Southeast Asia Training Course on TB control)
- Advanced Course in Smear Microscopy, December 2003
- Management of TB Laboratory Network Course (UNION), Bangkok, Thailand, March 2003
- Applied Epidemiology for Operations Research, Paris, France, January 2003
- Applied Epidemiology for Operations Research in TB Control, Addis Ababa, Ethiopia, October 2001
- Respiratory Epidemiological and Operations Research for Latin America, 2002
- Training Methods for Epidemiological and Operational Research, Rio de Janeiro, Brazil, June 2003
- TB Course for Doctors, Costa Rica, February 2002
- International Course in MDRTB Management, Mexico, May 2002 (LAC funds) (also funds for follow-up visits to countries)
- Regional Workshop on MDRTB in Bolivia, July 2002
- International Financial, Logistics, and Procurement Management Course for NTP Managers, India, February 2004
- TFT Follow-up Workshop, Addis Ababa, Ethiopia, November 2003
- TFT Regional Workshop for TB Training Focal Points from African Countries, The Hague, November 2002
- TFT Regional Workshop, Bangkok, Thailand, September 2003
- WHO Training Course for TOT in Management at Health Center Level, Warsaw, Poland, October 2002
- Training Course for TB Program Management, Warsaw, Poland, October 2002 and 2003
- Laboratory Management, Warsaw, Poland, 2002
- TB Training Evaluation Course (UNION), Montreal, Quebec, Canada, November 2002
- European TB Managers Workshop, Wolfheze, The Netherlands, June 2003
- Nursing Workshop: Contribution to DOTS Strategy, Katmandu, Nepal, September 2003 (UNION, Eastern Regional conference)
- Regional Workshop with Nurses and Allied Professionals about DOTS, Uruguay, December 2002
- Drug Susceptibility Testing Training Course, with WHO CRS, Lyon, France, January 2003
- Training Course on Standardization of DST Methods for Resistance Surveillance, for ex-Soviet countries (see Annual Report, APA3, p.13)

Annex E: Scope of Work

Scope of Work

Evaluation of the Tuberculosis Coalition for Technical Assistance (TBCTA)

November 1, 2003 through April 15, 2004

I. IDENTIFICATION OF THE TECHNICAL ASSISTANCE

General Description: The U.S. Agency for International Development, Bureau of Global Health, Office of Health, Infectious Diseases and Nutrition (USAID/BGH/HIDN) seeks the services of The Synergy Project to review the performance, impact, and lessons learned of the Tuberculosis Coalition for Technical Assistance (TBCTA) project, a USAID-sponsored partnership formed in the October 1, 2000 to control TB globally.

II. BACKGROUND

Globally, TB is a problem of enormous dimensions. In 2000, it was estimated that there were about eight million new cases of TB worldwide with two million deaths. TB kills more people than any other single infectious agent except the human immunodeficiency virus (HIV). Ninety-five percent of all TB cases and 98 percent of TB deaths occur in developing countries. However, TB also has an impact on industrialized countries with certain groups, especially those persons born in high TB incidence countries.

TB has a major impact on economic development both in countries with a high incidence of the disease as well as globally. In developing countries, 3-4 months of family income or up to 20-30 percent of annual household income can be lost due to TB. The potential cost to a nation due to lost productivity from TB is estimated between 4-7 percent of GDP. Not only does TB exact a heavy toll in human suffering and economic losses currently, it is increasing every year. A major contributing factor to the incidence of TB is infection with HIV. Today about 15 million people have dual infections with *Mycobacterium tuberculosis* and HIV. In many African countries, where TB is often perceived as being synonymous with AIDS, more than one half of TB patients are HIV-positive. In some countries, the HIV epidemic has led to a tripling or even quadrupling in the incidence of TB during the past ten years.

Strategy for Tuberculosis Control:

Global TB control is possible through a well-established strategy known as DOTS (Directly Observed Treatment Short Course). The DOTS strategy recommended by the World Health Organization (WHO) and the International UNION Against Tuberculosis and Lung Disease

(IUATLD) has now been adopted by 119 countries worldwide. It is one of the most cost-effective health interventions and is rigorously promoted around the world.

Implementation of DOTS requires both a strong primary health care system that ensures sustained access for TB patients to diagnosis, treatment and follow-up services. Important elements of such a system include a network of capable laboratories, a recording and reporting system, and a robust logistics system that ensures a secure supply of drugs. Political commitment to fund and implement effective national tuberculosis control programs is essential to promote global TB control and avoid the consequences of failure. In addition implementation of DOTS, requires improved access to primary care services that are affordable, equitable, committed and well organized. Education and training are essential elements to ensure the availability of human resources.

The global targets for the twenty-two high burden TB countries is to reach 85 percent treatment success and 70 percent case detection by 2005.

The Tuberculosis Coalition for Technical Assistance:

The Tuberculosis Coalition for Technical Assistance (TBCTA) is a USAID-supported project, executed through a unique partnership of six organizations⁹² actively involved in global TB control. Originally, the project had a budget of almost \$29 million for the 5-year period September 2000 - September 2005. Due to the great demand for TB technical assistance by the Missions, at the end of year 3 the ceiling was increased to almost \$44 million. The organizations that form the partnership are as follows:

1. The Royal Netherlands Tuberculosis Foundation (KNCV), based in The Hague, was established in 1903 as a unique public-private partnership. KNCV promotes effective and efficient tuberculosis control within a national and international context and acts as an implementing agency for projects financed by the Dutch Government and other Dutch international foundations. Since the 1980s, KNCV has contributed to the development and implementation of effective TB control programs in low-income countries. It also hosts the International Tuberculosis Surveillance Centre (ITSC) and the Tuberculosis Surveillance Research Unit (TSRU); contributes to international policy development especially within its collaboration with WHO and the IUATLD; and collaborates with numerous international organizations. KNCV has a highly qualified staff in a wide variety of fields of experience and expertise, many of which have long working/living experience in developing countries. It is

⁹² Current TBCTA partners: American Lung Association (ALA); American Thoracic Society (ATS); Centers for Disease Control and Prevention (CDC); International UNION Against Tuberculosis and Lung Disease (IUATLD); Royal Netherlands Tuberculosis Association (KNCV); and the World Health Organization (WHO).

the prime organization for this cooperative agreement and responsible for administrative management.

2. The International UNION Against Tuberculosis and Lung Disease (IUATLD), an NGO headquartered in Paris, is comprised of constituent, organizational, and individual members. There are IUATLD regional organizations in North America, Latin America, Europe, Africa, Asia, and the Middle East. The IUATLD disseminates information on TB and lung disease, coordinates and assists the work of its members throughout the world, and maintains close links with WHO, other UN agencies, and government and non-government organizations in the health and development sector. The IUATLD's expertise and its activities are focused on the areas of technical assistance, education and research.

3. The World Health Organization (WHO), headquartered in Geneva, has a presence in virtually all developing countries as well as having responsibility for defining the international health policy for TB control. It provides technical assistance and advice to countries on policy formulation, project planning and implementation, and monitoring and evaluation of TB control activities. WHO maintains global surveillance and monitoring of TB incidence drug resistance, and the status of control programs.

4. The American Lung Association (ALA), based in New York City, is the oldest voluntary health association in the United States and has 78 state and local organizations throughout the country. It is the constituent member in the United States to the IUATLD. Its mission is the prevention and control of lung disease and its work is done primarily through public education, public policy and advocacy activities. The ALA works internationally solely in the areas of advocacy and in fostering the development of international protocols.

5. The American Thoracic Society (ATS), also based in New York City, was founded in 1905. It is a 14,000-member educational and scientific society and is the major medical professional and scientific organization with an interest in tuberculosis. The ATS has considerable experience in collaborating with the Centers for Disease Control and Prevention [CDC] in developing guidelines for TB prevention and control used both in the United States and in other parts of the world. The ATS publishes a highly respected and widely read scientific journal. In addition, the Society conducts an annual international conference that attracts 15,000-16,000 attendees and is a major forum for the presentation of new information about TB and its control as well as providing an arena for tuberculosis training and education. A broad range of specific technical expertise is represented in the organization.

6. The Centers for Disease Control and Prevention (CDC), based in Atlanta, is the U.S. Federal public health agency. It promotes health and quality of life by preventing and controlling disease, injury, and disability. Within CDC, the Division of Tuberculosis

Elimination (DTBE) is responsible for domestic and international tuberculosis prevention and control activities. Activities are carried out in collaboration with state and local health departments, academic/research institutions, and other partners such as ministries of health in foreign-countries, and domestic and international non-governmental organizations. CDC provides technical assistance and consultation in a broad range of TB control areas. Although it is not a legal member of TBCTA, CDC coordinates on their annual work plan and participates in all the TBCTA Board meetings.

The purpose of TBCTA assistance is two-fold. First, it improves and expands the capacity of USAID to respond to the Global TB epidemic by providing state-of-the-art, context appropriate, technically sound and cost-effective consultation and technical assistance to high-incidence countries and USAID missions. In addition, it complements and expands existing global TB control efforts, such as the Stop TB Initiative, the programs of the WHO and the activities of the individual TBCTA partners. The ultimate goal is to work in collaboration with other global TB partners to accelerate the pace of DOTS expansion in order to meet the global targets mentioned above.

The TBCTA has two managerial levels that enable the partners to operate efficiently and effectively. The levels include the following:

- A Board of Directors that is responsible for overall policy, planning, quality assurance, and decision-making level involving all partner organizations
- A Program Management Unit (PMU) that is responsible for day-to-day project management, and which is based at the Royal Netherlands Tuberculosis Association (KNCV) in the Hague

TBCTA programmatic objectives:

- Accelerate implementation and expansion of the DOTS strategy with emphasis on the high burden countries as well as other countries strategically important to USAID.
- Develop institutional and technical capacity for TB control in target countries.
 - o Integrate TB control efforts within primary health care services more effectively
 - o Develop or strengthen linkages between TB control programs and HIV/AIDS prevention and treatment programs, and multi-drug resistance (MDR) efforts.
 - o Disseminate the objectives of the TBCTA to USAID missions and the countries selected
 - o Expand the capacity for providing high quality technical assistance worldwide

Within TBCTA a special group, the Task Force Training (TFT), has been established to address the human resource development issues. The TFT develops guidelines and universal materials

that can be adapted and included in international courses or trainings as well as provides technical assistance with the human resource development needs at the country level. The TFT works with NTPs, academic and medical institutions by strengthening their human resource capacity in TB control in order to reach and maintain the overall program targets or case detection and treatment.

Currently, TBCTA has received field support from thirteen USAID countries including Brazil, Cambodia, DR Congo, Dominican Republic, El Salvador, Egypt, Haiti, Indonesia, Malawi, Mozambique, Nigeria, Senegal, and South Africa. Each country focuses on different gaps in the TB control program that need strengthening in order to reach the global targets. In addition, the four USAID regional bureaus and REDSO provide field support to TBCTA.

III. PURPOSE

The purpose of the evaluation is to review the performance, impact and lessons learned of the TBCTA project on a global level as well as at the USAID Mission country level. The team will look retrospectively at the TBCTA cooperative agreement activities and answer the principal question: What is the evidence that TBCTA have made or will have made accelerations on the pace of DOTS expansion towards reaching the global targets and building institutional and individual capacity for TB control in targeted countries?

The results will be used to provide feedback to TBCTA on project operations and management, and provide recommendations to TBCTA and USAID on implementation progress and results. In addition, the evaluation will inform USAID in the future design of a follow-on activity.

IV. SPECIFIC OBJECTIVES

Overarching Issues

- What are the overall lessons learned and best practices from the Coalition?
- Is the sum of the Coalition greater than the individual parts? Has the Coalition been advantageous to USAID, each of the partners individually and the broader TB community?
- Do the Coalition partners meet the needs of USAID and the global demand for TB control? Is the Coalition too broad or narrow in partners and focus?
- Has USAID facilitated the work of TBCTA?
- How have partner's capacity been strengthened?

Administrative/Management

- Evaluate to what extent TBCTA has met the management functions outlined in the cooperative agreement including planning, allocation of funds and coordination of sub-agreements.
- Evaluate the efficiency and effectiveness of the administrative structure and management of TBCTA including the PMU and individual TBCTA partners.
- Evaluate to what extent TBCTA has supported the administrative components of the country work plans.
- How has TBCTA's monitoring and evaluation plan effectively captured and informed program results?
- What are some of the strengths and weaknesses of the four high-level indicators for the project? Are there other indicators that would reflect the TBCTA efforts?
- How has USAID's oversight and management aided or hindered TBCTA accomplishing results?
- Identify the key strengths and weaknesses that influence the management (operation) of TBCTA.
- Evaluate to what extent in-country TBCTA presences made a difference in project progress?

Technical

- Evaluate to what extent TBCTA has met the technical and programmatic objectives described in the technical documents and cooperative agreement.
- How has TBCTA met the intermediate results described in the technical documents and cooperative agreement?
- How has TBCTA met the TB technical needs of USAID Global and Missions?
- Evaluate to what extent TBCTA has been innovative and creative in their approach to controlling TB.
- How did TBCTA improve and expand USAID and partner's capacity to respond to the TB epidemic?
- Evaluate the product/outputs of the TBCTA combined efforts to control TB worldwide.
- What is the perceived impact (value added) TBCTA has on stakeholders working in TB control?
- Evaluate to what extent TBCTA has built institutional or individual capacity regional or at the country level.
- How has TBCTA contributed to the integration of TB control within primary health care services?

- Evaluate to what extent TBCTA has contributed to the availability of high quality technical assistance worldwide.

Coordination and Collaboration

- How has TBCTA collaborated with other USAID-funded cooperating agencies, stakeholders and other organizations and groups working in the field of TB control?
- Evaluate to what extent TBCTA has played a role in the global response to TB control.
- What has TBCTA contributed to the global TB policies and strategy planning?
- How does TBCTA relate to and work with Stop TB?
- What role has TBCTA played in assisting countries with GFATM proposals, program development and implementation?

V. METHODOLOGY

The evaluation will gather information through TBCTA staff and local partner interviews, reports and data review, focus group discussions and interviews with MOH personnel and local service providers and recipients, as well as interviews and field visits with USAID Mission and Washington staff. Issues related to project management, implementation, and attainment of results will be addressed. It would be useful if the team would develop an evaluation tool for ensuring consistency of information at every site. In addition, the team should develop a standardized questionnaire for interviewing all the USAID Regional and Country Mission providing field support to TBCTA. Sources of information and methods used should be described in the final report.

Document Review

- USAID/Washington will provide the team with historical program documents before the team planning meeting. These documents will include the technical proposal, cooperative agreement, yearly work plans, financial documents, progress reports and any other relevant materials. Also, pertinent documents on the countries chosen for the site visits will be provided.
- The TBCTA partners will be a good source of information for additional documents on their project activities. These documents will be made available upon request.
- Upon request, information on other USAID/Missions working with TBCTA will be provided.
- The evaluation team will be responsible for collecting and reviewing any other relevant documents throughout the evaluation.

Briefing Sessions

- A team planning meeting will be held in Washington before the evaluation begins. The meeting is essential for the following reasons:
 - Enabling USAID personnel, such as the CTO, TB Team, and others to present the team with the purpose and agenda of the assignment;
 - Agreeing upon approach for working with the USAID;
 - Developing a common understanding for the individual team members' responsibilities and roles;
 - Establishing a team atmosphere for working together;
 - Reviewing and clarifying logistical and administrative procedures for the assignment;
 - Developing a common understanding of the assignment's objectives and outcomes;
 - Developing a preliminary draft outline of the team's report; and
 - Sharing information on individual working styles and agreeing on a procedure for resolving difference of opinion both within the team and with the client.
- Brief Country Missions on arrival and departure.
- Ongoing discussions with USAID on the changes, adaptations and developments of the evaluation.
- Once the report is in the final draft format, the team will provide a debriefing in which the findings will be presented to USAID/W and TBCTA for comments.

Interviews and Site Visits

- USAID/W (CTO, former CTO, TB team leader, Division Chief, AO)
- USAID Regional Bureaus
- USAID Missions providing field support
- PMU
- Each Partner Headquarters Office
- Observe one Board meeting
- TFT Members
- Observe one TFT meeting or activity (if feasible)
- Stop TB Partnership Members
- Country-level*
 - USAID Missions
 - Senior Governmental Health Officials
 - National Tuberculosis Program Manager and Staff
 - Other local Tuberculosis institutions partnering with TBCTA
 - TBCTA employees in the field
 - International Organizations implementing TB activities

- Health Care Workers and Managers at Project Field Sites
- Clients

*The criteria for choosing the countries to visit are the following:

- Significant USAID field support
- Implementation by each of the three main partners (KNCV, WHO, IUATLD)
- Geographic diversity

PERIOD OF PERFORMANCE

The assignment will be conducted from October 1, 2003 through April 15, 2004. The following table is the projected schedule for implementing the methodology. It may be refined as a result of the team-planning meeting that will take place at the beginning of this assignment.

Table 1: Tentative Implementation Schedule

Task	Duration	Core Team Due Date	Team Leader	Senior Public Health Spec	TB Spec
1. Assignment Start-Up					
1.1 Review of Documents	Ongoing		2.00	2.00	2.00
1.2 Team Planning Meeting (TPM)					
1.2.1 Conduct TPM (USAID/W)	Nov 3–7	07 Nov 03	2.00	2.00	2.00
1.2.1 Adjust Scope of Work	Nov 3–7	07 Nov 03	0.50	0.50	0.50
1.2.3 Obtain CTO approval of work plan		07 Nov 03			
1.3 Develop evaluation tools and guidelines					
1.3.1 Develop interview questions and analysis guidelines	Nov 3–7	07 Nov 03	1.00	1.00	1.00
1.3.2 Conduct USAID/W and other local interviews	Nov 3–7	07 Nov 03	1.50	1.50	1.50
1.4 Logistical preparations					
1.4.1 Coordination with USAID/W, Missions, Bureaus, and TBCTA members	Nov 17– Dec 31	31 Dec 03	USAID/W		
1.4.2 Preparation of flight itineraries, visas, hotel accommodations, etc.		31 Dec 03	Synergy		
2. Interviews and Site Visits					
2.1 Conduct telephone interviews	Nov 17– Dec 31	31 Dec 03	5.00	5.00	5.00
2.2 Europe-based site visits: Hague, Paris, Geneva	Jan 7–16	16 Jan 03	9.00	9.00	9.00
<i>2.2.1 TBCTA Board Meeting will be held in Washington, DC 2/23-24/03; team leader will observe.</i>	Feb 23	Feb 23	1.00	0.00	0.00
2.3 Africa Region/Country level site visits (1 country)	Jan 17–24	24 Jan 04	8.00	8.00	8.00
2.5 ANE Region/Country level site visits (1 country)	Jan 25– Feb 1	01 Feb 04	8.00	8.00	8.00

2.6 E&E Region/Country level site visits (included in telephone interviews)			0.00	0.00	0.00
2.7 LAC Region/Country level site visits (1 country)	Feb 2–9	09 Feb 04	8.00	8.00	8.00
3. Report Preparation and USAID/W Debriefing					
Task	Duration	Core Team Due Date	Team Leader	Senior Public Health Spec	TB Spec
3.1 Prepare and submit Draft #1 Executive Summary & Full Report to USAID/W and TBCTA	Feb 10–27	27 Feb 04	10.00	7.00	7.00
3.1.1 Review of Draft #1 by USAID/W and TBCTA	Mar 1–5	05 Mar 04	0.00	0.00	0.00
3.2 Debrief USAID/W and TBCTA Members, separately	Mar 8–12	12 Mar 04	1.00	1.00	1.00
3.3 Receive comments from USAID/W and TBCTA Members	Mar 15–19	19 Mar 04	0.00	0.00	0.00
3.4 Revise Draft #1 (becomes final version)	Mar 22–26	26 Mar 04	5.00	3.00	3.00
3.5 Feedback to final version/approval by USAID	Mar 29–31	31 Mar 04	0.00	0.00	0.00
3.5 Synergy edits final version of the Executive Summary and Full Report	April 1–7	07 Apr 04			
3.6 Submit Executive Summary and Full Report to USAID/W (one hard copy; diskette in Word and .pdf files, the latter for website use if chosen by USAID/W)		09 Apr 04	0.00	0.00	0.00
4. Assignment Close-Out					
4.1 USAID approval of deliverables and completion of Synergy evaluation form		15 Apr 04	0.00	0.00	0.00
Total Consultant Days			62.00	56.00	56.00
Total Consultant Days (All)			174.00		

[N.B. VI. and VII. heads are missing from format. Editor.]

DELIVERABLES AND CLOSE OUT

A. Assignment Deliverables

1. Team Planning Meeting: All team members shall participate in a Team Planning Meeting at USAID/Washington and at The Synergy Project in Washington, D.C. at the beginning of the project. The purpose will be to:

- (a) Review the goals and objectives of the assignment
- (b) Develop a work plan, which will include, as needed, revision of the implementation schedule and initial development of the interview guides
- (c) Begin in-person interviews with key USAID/Washington staff, if time permits.

Interviews and Site Visits: Team members will conduct interviews and site visits in accordance with the schedule developed during the TPM.

3. Draft Executive Summary and Full Report and Briefing with USAID/W and the TBCTA Members: **A detailed evaluation report with a summary of findings, including results and indicators for the project, feedback on performance and implementation, and recommendations for improved implementation and results. The evaluation team is required to provide the following report and briefing deliverables:**

3.1 A draft report will be provided to USAID/W and TBCTA no later than March 15, 2004. The report should not exceed 50 pages with an executive summary of no more than 5 pages.

3.2 Shortly after submitting the report, a meeting should be held with USAID and TBCTA in order to present the findings and receive comments.

4. Final Executive Summary and Full Report: After comments have been received from USAID and TBCTA on the first draft, the final Executive Summary and Full Report entitled, "Evaluation Report of the Tuberculosis Coalition for Technical Assistance (TBCTA)-Executive Summary (April 2004)" and "Evaluation Report of the Tuberculosis Coalition for Technical Assistance (TBCTA)-Full Report (April 2004)" will be prepared incorporating the comments received from the review of the drafts. This step entails a final review by the technical backstop officer and editing by The Synergy Project. The final versions shall be submitted to USAID/W on diskette in Word format and .pdf format for posting to the USAID website should USAID/BGH/HIDN decide to post the document. One hard copy will be provided. USAID/BGH/HIDN will be responsible for distributing copies to TBCTA.

B. Assignment Closeout

Acceptance of the final products and completion of the Synergy evaluation form:

USAID/Washington will give to The Synergy Project written acceptance of the final version of the Executive Summary and the Full Report, and it will complete the Synergy evaluation form, which will be provided to USAID/Washington by The Synergy Project.

VIII. TEAM COMPOSITION, QUALIFICATIONS, AND LEVEL OF EFFORT

- **Team Leader:** A public health expert in USAID program design, implementation, and evaluation. The person should have an excellent understanding of USAID operational, management and technical approaches. In addition, S/he should have strong leadership skills.
- **Senior Public Health Specialist:** An expert in international public health with a good understanding of Tuberculosis and the current global strategy to combat it. S/he should have experience with USAID operational, management and technical approaches. A good understanding of human resource development is desired.
- **Senior TB Specialist:** Expert in the field of international tuberculosis control with excellent understanding of the global strategy and its implementation. S/he should have many years of experience monitoring and evaluating various DOTS programs throughout the world. An understanding of USAID is desired.

The level of effort for each consultant is estimated and outlined in Section VI, Table 1, Tentative Implementation Schedule.

IX. RELATIONSHIPS AND RESPONSIBILITIES

Team Leader: The Team Leader will be responsible for the overall organization of the work; conducting U.S. and in-country briefings; and facilitating productive working relationships among the team members. The Team Leader will consult with the client, USAID/BGH/HIDN, throughout the assignment to ensure progress is sound and the key scope of work issues are being addressed. The Team Leader will facilitate the preparation of the Executive Summary and the Full Report among all the team members; assure that the draft and final products are prepared in accordance with the Scope of Work; and that the required revisions for the final report are incorporated. Should changes to the Scope of Work be necessary, the Team Leader has authority to negotiate such changes with USAID/BGH/HIDN and shall officially inform The Synergy Project, in writing, of said changes. The Team Leader will manage local expenditures.

Team Members: The Senior Public Health Specialist and the TB Specialist will work under the direction of the Team Leader. All team members will:

- (a) Participate in the team planning meeting
- (b) Participate in any briefings as requested by the Team Leader
- (c) Foster productive team working relationships
- (d) Facilitate the preparation of all deliverables
- (e) Maintain records and notes of all interviews and meetings
- (f) Submit to The Synergy Project consultant trip reports

Client: Technical direction from USAID/BGH/HIDN will be as follows:

Ms. Cheri Vincent, MSPH, Public Health Advisor and Cognizant Technical Officer

USAID/BGH/HIDN/ID

1300 Pennsylvania Ave., N.W.

Washington, DC 20523-3700

Telephone 202-712-1279; Fax 202-216-3702

Email: cvincent@usaid.gov..

The Synergy Project: Synergy will provide a senior technical specialist who will provide technical oversight as needed; give insights to the draft executive summary and full report, and review the final version prior submission. Editing services will be provided for the final version of the Executive Summary and full report, as well as a diskette with the documents in Word format and .pdf format (for posting to the USAID website, if chosen by USAID/BGH/HIDN). A program manager will identify and recruit team members and will manage and support the team during the assignment period. Logistical support will be provided as described in Section X.) The Synergy Project points of contact are:

The Synergy Project
TvT Global Health and Development Strategies
a Division of Social & Scientific Systems, Inc.
1101 Vermont Ave., N.W., Suite 900
Washington, D.C. 2005
Telephone: 202-842-2939/Fax: 202-842-7650

Gary Merritt, PhD, Technical Backstop
Extension 129/Email: gmerritt@s-3.com

Deanna Crouse, MHS, Program Manager
Extension 124/Email: dcrouse@s-3.com

A contact list for all team members will be provided to the client and all team members at project start-up.

X. LOGISTICS

The Synergy Project will provide the following technical and logistical support:

- Identify and recruit team members, and manage and support the team while on assignment
- Administrative support for arranging all consultant travel, visas, DBA, Medex, and related preparations for consultant departure
- Provide an advance to the team leader prior to departure to manage the local expenses
- Provide support and editing services for the preparation of the final versions of the deliverables

USAID and TBCTA will provide the following logistical support:

- USAID/BGH/HIDN to arrange the schedule of interviews with TBCTA members and USAID regional and country missions
- TBCTA to coordinate travel schedules and interviews with its implementing partners for the regional site visits
- USAID country missions for administrative support for coordinating the mission interview schedules, making hotel reservations, and providing workspace and a computer station for team members. If needed, the country missions will facilitate cash checking privileges for the team members

XI. REFERENCE MATERIALS

See “Document Review” in Section V. Methodology. The Synergy Project will provide consultants with as many documents electronically as it can that it receives from

USAID/BGH/HIDN. Any additional documents that are collected by the team members during the assignment period shall be tracked and recorded by the consultants for inclusion into the full report.

XII. FUNDING

This assignment will be funded by Global Funds earmarked for tuberculosis.

Annex F: Questionnaire for USAID Missions

Background: The Bureau for Global Health has asked Synergy to carry out an independent mid-project evaluation of the TBCTA (TB Coalition for Technical Assistance) project. TBCTA provides technical assistance, training and other selected support in thirteen countries, including yours.

The independent evaluation team, hired by Synergy, plans to ask the following questions of USAID missions in each of the countries where TBCTA has been working. You have been identified as the Mission backstop for TBCTA. An evaluation team member will soon contact you by email to set up a time for a telephone interview when he will request your views on these questions. The sources of information gathered as part of this evaluation will remain confidential.

1. GENERAL

- What are the major gaps (constraints) in increasing DOTS coverage in your country?
- Summarize the Mission's TB strategy and TBCTA's role in that strategy.
- How close is the Mission's working relationship with the national TB program? Through a country coordinating mechanism? How close is TBCTA's working relationship with the national TB program?

2. PROJECT RESULTS

- Has the TBCTA played a role in developing a national multi-year work plan (a.k.a. a mid-term development plan) for DOTS implementation and in assessing the national TB program?
- Has the project played a role in planning and assessing the national TB program
- Do you have an adequate TBCTA work plan and is it on schedule (if not, why not).
- To what extent has TBCTA contributed significantly to DOTS expansion (and is likely to contribute during the final 2 years of the project).

3. CAPACITY BUILDING AND TECHNICAL

- Describe the Project's activities in increasing national HR capacity (to date and in the future)
- How effective has project training and TA been (selection of courses, participants, follow-up, sustainability);
- How effective has the TBCTA been in supporting USAID technical needs in TB (planning, STTA)

4. INTEGRATION AND COLLABORATION

- What role has the project played in encouraging HIV-TB collaboration?

- What role has the project played in integrating TB with the country's PHC system?
- What role has the project played in collaboration with TB partners (e.g., the STOP TB initiative, the GFATM, the Global Drug Fund)?

5. MANAGEMENT (USAID AND TBCTA)

- Has TBCTA management been responsive to mission and country requests?
- Have communications with the Washington CTO regarding the project been clear and effective.
- Does the project have a significant pipeline of mission funds? If so, what have been the key factors that have built up the pipeline?
- What management weaknesses need to be addressed?

6. FUTURE

- What role does the mission see for TBCTA in the future (the remaining two years of the project)?
- What role might TBCTA play over a longer period?

Annex G: Questionnaire for National TB Program Managers

QUESTIONS FOR NTP MANAGERS

Background: USAID is carrying out a routine mid-project evaluation of the TBCTA (TB Coalition for Technical Assistance) project. TBCTA provides technical assistance, training and other selected support in several countries, including your country.

The independent evaluation team plans to ask the following questions of NTP managers in each of the countries where TBCTA has been working. An evaluation team member will soon contact you by email to set up a time for a telephone interview when he will request you to answer these questions. The sources of information gathered as part of this evaluation will remain confidential.

1. GENERAL

- Is there a national plan for DOTS implementation?
- Is there a functioning country coordinating mechanism for DOTS implementation including the NTP and donors?
- What is the current DOTS coverage in the country and how is DOTS expansion defined in your statistics.
- What are the major gaps (constraints) in increasing DOTS coverage

2. PROJECT RESULTS

- Has the TBCTA played a role in developing a national plan for DOTS implementation and in assessing the national TB program
- To what extent has TBCTA contributed significantly to DOTS expansion in your country (and is likely to contribute during the final 2 years of the project).

3. CAPACITY BUILDING AND TECHNICAL

- What activities has TBCTA performed to increase national Human Resource capacity (to date and future)
- How effective has TBCTA training and Technical Assistance been (selection of courses, participants, follow-up, sustainability);

4. INTEGRATION AND COLLABORATION

- Has TBCTA played a role in encouraging HIV-TB collaboration?
- Has TBCTA played a role in integrating TB with your country's PHC system?
- Has TBCTA collaborated and coordinated with other major TB organizations (local and international) working in your country (e.g., the STOP TB initiative, the GFATM, the Global Drug Fund)?

5. MANAGEMENT (USAID AND TBCTA)

- Has USAID been responsive to country requests for assistance from TBCTA?
- Has TBCTA management responded to country requests for assistance in a timely manner and with high quality support?
- Do you feel you have a satisfactory working relationship with both USAID and TBCTA?
If not, how could it be improved?

6. FUTURE

- What role do you see for TBCTA assistance in the future (remaining 2 years of the project)?
- What role might TBCTA play in your country over a longer period?