

TB CARE I Year 1 Report



TB CARE I

TB CARE I Partners

American Thoracic Society (ATS)
FHI 360
Japan Anti-Tuberculosis Association (JATA)
KNCV Tuberculosis Foundation
Management Sciences for Health (MSH)
International Union Against Tuberculosis and Lung Disease (The Union)
World Health Organization (WHO)

Year 1
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Cover page: High-resolution microscopy images of TB bacilli

List of Abbreviations

ACSM	Advocacy Communication Social Mobilization
AFB	Acid Fast Bacilli
CAR	Central Asian Republics
CATA	Cambodia Anti-TB Association
CDC	Center for Disease Control and Prevention
CENAT	National Center for Tuberculosis and Leprosy Control
CoE	Center of Excellence
CDR	Case Detection Rate
CSO	Civil Society Organization
DOT	Directly Observed Treatment
DOTS	Directly Observed Treatment Short Course
DR	Drug Resistance
DRS	Drug Resistance Survey
DST	Drug Susceptibility Testing
ECSA	East, Central and Southern Africa
EQA	External Quality Assurance
ERR	Electronic Recording & Reporting
FIND	Foundation for Innovative New Diagnostics
FLD	First Line Drug
GDF	Global Drug Facility
GFATM	Global Fund for Aids, Tuberculosis and Malaria
GLC	Green Light Committee
GLI	Global Laboratory Initiative
GSN	Gold Star Network
HBC	High Burden Country
HRD	Human Resource Development
HSS	Health System Strengthening
IC	Infection Control
IEC	Information, Education and Communication
ILEP	International Federation of Anti-Leprosy Associations
InSTEDD	Innovative Support to Emergencies Diseases and Disasters
JATA	Japan Anti Tuberculosis Association
KANCO	Kenya AIDS NGOs Consortium
KAPTLD	Kenya Association for the Prevention of TB and Lung Diseases
KIT	Royal Tropical Institute
KNCV	KNCV Tuberculosis Foundation
MDR	Multi Drug Resistance
MDR-TB	Multi Drug Resistant Tuberculosis
M&E	Monitoring and Evaluation
MOA	Memorandum of Agreement
MOH	Ministry of Health
MOST	Management & Organizational Sustainability Tool
MSF	Médecins sans Frontières (Doctors without Borders)
MSH	Management Sciences for Health
NAP	National AIDS Program
NGO	Non Governmental Organization
NIHE	National Institute of Health and Epidemics (Vietnam)
NTP	National TB Program
NRL	National Reference Laboratory
NTRL	National Tuberculosis Reference Laboratory (Uganda)
OD	Operational District
OR	Operations Research
PMDT	Programmatic Management of Drug-resistant Tuberculosis
PMU	Program Management Unit
PPM	Private Public Mix
PPP	Public Private Partnership
RIF	Rifampacin
QMR	Quarterly Monitoring Report
SLD	Second Line Drug
SRL	Supra-national Reference Laboratory
SRLN	Supra-national Reference Laboratory Network
SOP	Standard Operating Procedures
SS+	Sputum Smear positive
SS-	Sputum Smear negative

STAR	Situation, Task, Action, Result
TA	Technical Assistance
TB	Tuberculosis
TB CAP	Tuberculosis Control Assistance Program
TBCTA	Tuberculosis Coalition for Technical Assistance
TWG	Technical Working Group
USAID	United States Agency for International Development
USG	United States Government
WHO	World Health Organization

Executive Summary

This is the first annual report of TB CARE I, implemented by a coalition of seven international organizations in tuberculosis (TB) control. KNCV Tuberculosis Foundation (KNCV) is the prime partner and the collaborating partners are American Thoracic Society (ATS), FHI 360, International Union Against Tuberculosis and Lung Disease (The Union), Japan Anti-Tuberculosis Association (JATA), Management Sciences for Health (MSH) and World Health Organization (WHO).

Following the success of the Tuberculosis Control Assistance Program (TB CAP, 2005-2010), TB CARE I is one of the main global mechanisms for implementing USAID's TB strategy as well as contributing to TB/HIV activities under the U.S. President's Emergency Plan for AIDS Relief (PEPFAR).

The program focuses on eight priority Technical Areas:

1. Universal and Early Access
2. Laboratories
3. Infection Control (IC)
4. Programmatic Management of Drug Resistant TB (PMDT)
5. TB/HIV
6. Health Systems Strengthening
7. Monitoring & Evaluation (M&E), Operations Research (OR) and Surveillance
8. Drug Supply and Management

This report provides a summary of the program's contributions towards USAID's targets and expected outcomes, as well as results achieved to date through 26 core projects, three regional projects and 20 country projects.

TB CARE contributes to three USAID target areas:

- Sustain or exceed 84% case detection rate and 87% treatment success rate
- Treat successfully 2,55 million new sputum-positive TB cases
- Diagnose and treat 57,200 new cases of multi-drug resistant TB (MDR-TB)

Below are a summary of baseline data for the five core TB CARE I indicators that are used to measure TB CARE I's contribution to these targets:

1) Number of cases notified (all forms and smear-positive cases) - In 2010, one million TB cases (all forms) were registered across all TB CARE I countries. Indonesia has the highest number of TB cases (300,659) and Dominican Republic reported the lowest number of TB cases (3,964). At baseline (2010), 466,009 new smear-positive TB cases were registered across all TB CARE I countries.

2) Case detection rate (all forms) - At baseline (2010), the average case detection rate in 18 TB CARE I countries was 64%. While none of the countries have reached the targeted 84%, Kazakhstan, Kenya and Namibia have reached 82%.

3) Treatment Success Rate of confirmed cases – The average treatment success rate across all TB CARE I countries is 88%. Rates ranged from 62% in Kazakhstan to 95% in Cambodia. There are still 12 countries that are below the 87% target. The median treatment success rate is 85%, which better reflects the situation across TB CARE I countries than the mean (88%).

4) Number of new MDR cases diagnosed and put on treatment- In 2010, before TB CARE I began, 11,241 MDR-TB cases were diagnosed. During the same year 7,912 MDR cases were put on treatment. However, the majority of cases diagnosed (87.9%) and put on treatment (87.3%) are from three CAR countries, namely Kazakhstan, Kyrgyzstan and Uzbekistan.

5) Number (and percent) of confirmed TB cases among Health Care Workers (HCWs) - Kazakhstan was the only country to report on TB occurrence among HCWs in 2010 (198 cases).

The table on page 9 provides a summary of TB CARE performance indicators.

Table 1: Summary of TB CARE performance indicator results

Summary Indicator Results	2010	2011
Number of cases notified (all forms)	1,006,839	N/A
Number of new smear positive TB cases reported to the NTP	466,009	
Case Detection Rate (all forms)	64%	N/A
Treatment Success Rate (2009)	88%	N/A
Number of MDR and XDR cases diagnosed	11,241	N/A
Number of MDR and XDR cases put on treatment	7,912	N/A
Number of confirmed TB cases among Health Care Workers (HCWs)	198	N/A
Percent registered HIV-positive TB patients who receive ART	40%	N/A
Percent registered HIV-positive TB patients who receive CPT during their TB treatment	85%	N/A
Total number of people trained using USG funds in Year 1	4,354 (44% female)	N/A
EQA coverage of smear microscopy in TB CARE I geographical areas	81%	84%
Number of TB CARE I Countries	2010	2011
Patient's Charter has officially been adopted/disseminated	9	9
CB-DOTS is scaled-up	10	11
Established a formal link with an SRL	11	11
National laboratory strategic plans available	7	11
National implementation of GeneXpert	3	13
Reported on TB occurrence among HCWs	1	N/A
National TB-IC guidelines that have been approved/disseminated	9	10
TB-IC measures included in the overall national IPC policy	7	7
A team of trained trainers in TB-IC available	12	13
NTP has an annual HRD implementation plan and budget	4	N/A
Government budget includes support for anti-TB drugs	11	11
An electronic TB treatment register available at the NTP	8	8
National M&E plan is up-to-date	9	10
RDQA conducted in the last six months	9	10
NTP provides regular feedback from the central level to provinces	7	7
NTP has updated SOPs for selection, quantification, procurement and management of TB medicines	8	8
NTP has quarterly stock information on first-line drugs	7	7
NTP has quarterly stock information on second-line drugs	4	4

N/A – Not applicable

One key achievement from each TB CARE I technical area and country project has been highlighted below:

Technical Areas:

Universal and early access - A universal access planning framework for use at national and decentralized levels was developed to help NTPs to systematically organize, plan, prioritize and develop programs to improve the access to and quality of care. The framework assists in mapping vulnerable and most-at-risk groups, identifying gaps in patient access and barriers to services, and provides guidance on how to remove these barriers.

Laboratories - Rapid, intensified implementation of GeneXpert is underway in three countries (Vietnam, Indonesia, and Nigeria). Following training on GeneXpert, Indonesia and Nigeria started implementation of GeneXpert and will begin to use the device for routine analysis early in Year 2. Apart from Nigeria, Indonesia and Vietnam, ten other TB CARE I countries started the national implementation of GeneXpert in Year 1 (Botswana, Cambodia, Kazakhstan, Kyrgyzstan, Djibouti, Dominican Republic, Ethiopia, Kenya, Mozambique, Zambia), which will continue in Year 2.

Infection Control – A new approach to accelerate TB-IC scale-up, the Core Package for TB-IC, was developed. The key components of the Core Package are captured by the acronym, F-A-S-T: “Find cases Actively, Separate safely, and Treat effectively”.

PMDT - The Centre of Excellence (CoE) on PMDT in Kigali, Rwanda conducted three international training courses in Year 1 on TB-IC, PMDT and laboratory diagnostics. In total 34 staff from the region has been trained.

TB/HIV - Two products were developed for the purpose of accelerating uptake of the Community-based (CB) Simplified Checklist for TB Infection Control: 1) a Training of Trainers (TOT) curriculum to facilitate uptake of the Checklist in high-burden TB-HIV settings and 2) a step-by-step “how-to” handbook for community health workers on how to effectively use the Checklist.

Health Systems Strengthening – One core project focused on training national leaders and their teams on HRD tools to enable them to implement the country’s HRD strategy. HRD action plans are in place and being implemented in six NTPs that participated in the program (Afghanistan (2), Ghana, Indonesia, Pakistan and Uganda). In addition, a total of 4,354 people were trained by TB CARE I in Year 1 (44% female).

M&E, OR and Surveillance - A workshop “Using TB Information for Decision Making” was conducted in collaboration with MEASURE Evaluation with 30 participants from 16 TB CARE I/II and TB 2015 countries. Participants developed mini M&E plans for their countries, which will be implemented in Year 2.

Drug Supply and Management - There were no drug management core activities in Year 1. In Indonesia, there was an increase in national budget for drug supply by as much as 70% compared to the previous year. This budget increase is a direct result of the high level mission from international partners conducted in February 2011.

Country Projects:

Afghanistan - TB-IC measures were extended to an additional 15 public health facilities in Year 1, four in Kabul city and 11 in the provinces. In these facilities, TB-IC committees were established, TB-IC focal points were identified and health facility staff assisted in developing a TB-IC plan and integrating it into the facilities general Infection Prevention (IP) plan.

Botswana - TB CARE I Botswana facilitated the development of action plans for TB-IC, PMDT, CB-DOTS and TB/HIV, which was followed by the development of a draft National TB Strategic Plan for 2012-2016.

Cambodia - The expansion of childhood TB pilot sites to five additional operational districts (ODs) was completed, covering a total of nine ODs. From July-Aug 2011, 2,784 childhood TB suspects were referred to a referral hospital of which 23% were diagnosed as TB cases and registered for treatment.

CAR – Kazakhstan - Draft laboratory guidelines, a laboratory plan and SOPs on laboratory maintenance have been developed.

CAR – Kyrgyzstan - A joint assessment mission on different aspects of TB control in civic and prison TB services (TB in prisons, PMDT, TB in children, TB in migrants, TB-HIV, TB-IC, patient support system and HR) was conducted. Results are providing guidance to the NTP and informing TB CARE I Year 2 activities.

CAR – Uzbekistan - A TB-IC assessment was conducted in TB facilities in four sites. Recommendations included finalizing and updating the legislative basis for TB-IC according to international recommendations, developing a budgeted TB-IC Activity Plan, implementing rapid diagnostic tests (GeneXpert), and organize surveillance of TB incidence among HCWs.

Djibouti - Guidelines for the treatment of retreatment and MDR cases have been developed along with a diagnostic algorithm for TB and MDR-TB.

Dominican Republic - In coordination with the NTP visits were made to new pharmacies expanding the PPM pharmacy model. To date, 105 TB suspects have been referred to DOTS facilities from participating pharmacies.

Ethiopia - A total of 100 MDR-TB patients were put on treatment, bringing the total number of MDR-TB patient who started treatment to 303. TB CARE I experts participated in the development protocol to pilot an ambulatory care model of MDR-TB service in two regions (Addis Ababa & Dire Dawa) and are fully involved in the readiness assessment of the pilot regions.

Ghana - TB CARE I supported the NTP to pilot the use of the Rapid Data Quality Assessment (RDQA) tool. The piloting showed that data completeness on recording and reporting forms is a challenge as transcription errors from the treatment cards through to the national level data result in misclassification of TB patients. As a result, the NTP wants to implement a standardized data validation system.

Indonesia - By the end of Year 1 a total of 1,585 MDR suspects were identified, 471 confirmed MDR cases were diagnosed and 332 MDR patients were put on treatment. 137 patients received support for side effect management between April and September 2011. Home visits and counseling were conducted for more than 220 cases to ensure uninterrupted treatment.

Kenya - Between January-June 2011, the private sector with support from TB CARE I through Kenya Association for the Prevention of TB and Lung Diseases (KAPTLD) contributed 8% of the national case notification (4,261 out of the 52,854 cases) compared to 3% baseline or the 5% target for Year 1.

Mozambique - During supervisory visits, 20 quarterly reports from 10 districts were reviewed for completeness, timeliness and analysis of information. Eleven out of 20 quarterly M&E reports (55%) met the quality criteria, an improvement from the target of 25%.

Namibia - The project worked closely with the NTP to help develop, finalize and disseminate the NTP M&E plan. The SOPs for quarterly TB data review meetings were developed and have been shared with all regions to maximize data quality and utility of the meetings.

Nigeria - The use of CPT and ART among co-infected patients has improved throughout Year 1. ART use among co-infected patients increased from 39% at baseline to 44% in Quarter 3 and 67% by the end of Quarter 4, surpassing the target of 60%. These improvements in TB/HIV indicators may be in part the result of several TB/HIV collaborative training activities.

Pakistan - As of the end of Year 1, 42 additional clusters of the TB Prevalence Survey have been done (76 in total), indicating that only 16 more clusters need to be completed. The Prevalence Survey is on track to be completed by the end of March 2012.

South Sudan - TB CARE I supported the NTP in the development of an assessment tool to identify facilities that can integrate TB services into primary healthcare. Ten facilities have been identified for integrating TB services. A framework for integrating TB services was developed and this will provide minimum standards for integrating TB services.

Vietnam - Three TB-IC training courses for TB and HIV staff in three provinces have been conducted in July 2011. TB-IC assessments were conducted in 50 DOTS treatment units (DTUs) and HIV clinics.

Zambia - TB CARE I provided technical and financial support for the finalization of the National TB Strategic Plan. Technical support was also provided on the country's strategy for scale up of ACSM activities that will enhance participation of many stakeholders in TB control.

Zimbabwe - The draft Drug Resistance Survey (DRS) protocol was prepared by TB CARE I and submitted to the NTP. Data collected between January-September 2011 indicates that 1% of sputum positive pulmonary TB patients have DR-TB (25/2,463).

Knowledge Exchange:

Below is a list of tools or publications that have been developed or released in Year 1, all of which can be found on the new TB CARE I website (www.tbcare1.org):

- Laboratory accreditation tools and roadmap (www.GLIquality.org)
- Rapid Implementation of the Xpert MTB/RIF diagnostic test : Technical and Operation "How To" practical considerations
- Community-based (CB) Simplified Checklist for TB-IC (updated)
- TB CARE I Newsletter (#1)
- TB CARE I poster and brochure

1. Introduction

TB CARE I is a USAID five-year cooperative agreement (2010-2015) that builds and expands upon previous USAID TB prevention and treatment efforts over the last eleven years, particularly the success of the Tuberculosis Control Assistance Program (TB CAP). TB CARE is one of the main global mechanisms for implementing USAID's TB strategy as well as contributing to TB/HIV activities under the U.S. President's Emergency Plan for AIDS Relief (PEPFAR). TB CARE I follows on from the Tuberculosis Coalition for Technical Assistance program (TBCTA, 2000-2005) and TB CAP (2005-2010) and it is implemented by a coalition of seven international organizations in TB control. KNCV Tuberculosis Foundation (KNCV) is the prime partner and the collaborating partners are American Thoracic Society (ATS), FHI 360, International Union Against Tuberculosis and Lung Disease (The Union), Japan Anti-Tuberculosis Association (JATA), Management Sciences for Health (MSH) and World Health Organization (WHO).

There is a second program, TB CARE II, which shares the same objectives, technical strategies and indicators as TB CARE I. TB CARE II is led by University Research Co., LCC (URC) and collaborating partners include Partners in Health (PIH), JHPIEGO and Project HOPE. TB CARE I and II share a strategic board and collaborate on a few strategic core projects.

The program focuses on eight priority Technical Areas:

1. Universal and Early Access
2. Laboratories
3. Infection Control (IC)
4. Programmatic Management of Drug Resistant TB (PMDT)
5. TB/HIV
6. Health Systems Strengthening
7. Monitoring & Evaluation (M&E), Operations Research (OR) and Surveillance
8. Drug Supply and Management

And four over-arching elements, representing the 'CARE' of TB CARE;

- Collaboration and Coordination
- Access to TB services for all people
- Responsible and Responsive Management Practices;
- Evidence-based M&E

TB CARE's strategy is based on four components: 1) building on foundations to achieve new levels of success; 2) using innovations to respond to USAID Missions and country needs; 3) strengthening partnerships to achieve universal access and improve outcomes; and 4) strengthening health systems to ensure sustainability.

The TBCTA coalition is pleased to present USAID with the Year 1 Annual Report of the TB CARE I program. In the first year, 20 country projects, three regional projects and 26 core projects were initiated. A summary of all core projects and deliverables can be found in Annex 1. Year 1 has ended in September 2011 for seven country projects, while the other countries have extensions or a different end date.

This report provides a summary of the program's contributions towards USAID's targets and expected outcomes, as well as the results achieved to date. This report also provides a technical and financial update on progress towards planned outputs and main activities for these approved projects. Additional details on country achievements, activity progress and country-specific indicators can be found in the country-specific Quarter 4/Annual Reports.

2. Background

The Global Context

TB continues to be a significant public health issue worldwide. Although the absolute number of TB cases has been declining since 2006, in 2010, there were still roughly 8.8 million incident cases of TB, about 1.1 million deaths from TB among HIV-negative people and an additional 0.35 million deaths from HIV-associated TB. Roughly 36% of these TB cases and 22% of these reported deaths are women. In 2009, TB deaths among parents left almost 10 million children orphaned. The 22 high-burden countries (HBCs) accounted for 82% of all notified cases, of which India and China alone accounted for 40% of all cases. Globally, in 2010 5.7 million new and recurrent cases of TB were notified which is equivalent to 65% of the estimated number of incident cases. The treatment success rate among new confirmed cases was 87% at the global level.

There is some good news. All six WHO regions are on track to achieve the Millennium Development Goal target of decreasing TB incidence rates by 2015. Five of the six regions are projected to meet the Stop TB Partnership target of halving 1990 mortality rates by 2015; mortality rates have already fallen by over 30% since 1990.

Although progress is being made on some fronts, MDR-TB continues to be a major concern. In the majority of countries, less than 5% of new and previously treated TB patients were tested for MDR-TB in 2010. Only about 16% of the estimated 290,000 MDR-TB cases are on treatment (2010). New diagnostics like GeneXpert provide an opportunity to potentially increase diagnosis of TB and MDR-TB; however it should be scaled up in tandem with a strong laboratory system. Only 14 of the 22 HBCs met the standard of

one microscopy center per 100,000 population. Laboratories capable of performing culture and drug sensitivity testing are still rare. The threat of MDR-TB emphasizes the need for accelerated laboratory strengthening at all levels.

With about 13% of TB cases occurring among people living with HIV (PLHIV), TB/HIV collaborative interventions are still important. Last year, 34% of TB patients were tested for HIV (59% in African countries). Also, 80% of co-infected patients were started on cotrimoxazole preventative therapy (CPT) and 46% were receiving antiretroviral therapy (ART). Efforts need to be sustained in order to reach the global targets of every TB patient being tested for HIV and for every co-infected patient to receive CPT and ARV.

USAID's Response

In 2008, the U.S. Congress passed the Tom Lantos and Henry J. Hyde United States Global Leadership Against HIV/AIDS, Tuberculosis and Malaria Reauthorization Act, which supported a substantial increase in U.S. Government (USG) funding for TB treatment and control over a five-year period. A USG Global Tuberculosis Strategy was developed, which supported the objectives of the Global Plan to STOP TB. The USG strategy for 2009-2014 contains four main goals and targets:

1. Contributing to a 50 percent reduction in TB deaths and disease burden from the 1990 baseline;
2. Sustaining or exceeding the detection of at least 84 percent of sputum smear-positive cases of TB and successfully treating at least 87 percent of cases detected in countries with established USG tuberculosis programs;
3. Successfully treating 2.6 million new sputum smear-positive TB patients under DOTS programs by 2014, primarily through support for needed services, commodities, health workers, and training, and additional treatment through coordinated multilateral efforts; and
4. Diagnosing and initiating treatment of at least 57,200 new MDR-TB cases by 2014 and providing additional treatment through coordinated multilateral efforts.

The following key interventions were selected to achieve these targets:

1. Accelerated detection and treatment of TB in up to 25 countries,
2. Scaled up prevention and treatment of MDR-TB,
3. Expanded coverage of interventions for TB-HIV co-infection in coordination with USG HIV efforts under the President's Emergency Plan for AIDS Relief (PEPFAR), and
4. Improvements in health systems.

TB CARE I and TB CARE II were designed to implement the USG strategy and contribute to the overall USG TB control targets. TB CARE collaborates with other national and international initiatives in providing global leadership and support to National TB control efforts.

3. TB CARE's M&E Framework

The TB CARE M&E system is designed to ensure project-wide monitoring and timely and accurate reporting of results. An M&E Framework has been developed which links the USAID's goal, key targets, technical areas and expected outcomes over the lifetime of the program (Table 2).

Table 2: TB CARE Monitoring and Evaluation Framework

USAID's Goal		Halve TB prevalence and death rates in USAID assisted countries by 2015
USAID's Targets		<ol style="list-style-type: none"> 1. Sustain or exceed 84% case detection rate and 87% treatment success rate of those cases in countries with established USAID TB programs; 2. Treat successfully 2,550,000 new sputum-positive TB cases; 3. Diagnose and treat 57,200 new cases of MDR-TB
Technical Areas		Expected Outcomes
1	Universal and Early Access	<ol style="list-style-type: none"> 1.1 Increased demand for and use of high quality TB services and improve the satisfaction with the services provided (Population/Patient Centered Approach) 1.1 Increased quality of TB services delivered by all care providers (Supply) 1.2 Reduced patient and service delivery delays (Timing)
2	Laboratories	<p>Ensured capacity, availability and quality of laboratory testing to support the diagnosis and monitoring of TB patients</p> <p>Ensured availability and quality of technical assistance and services</p> <p>Ensured optimal use of new approaches for laboratory confirmation of TB and incorporation of these approaches in national strategic laboratory plans</p>
3	Infection Control	<ol style="list-style-type: none"> 3.1 Increased TB-IC political commitment 3.2 Scaled-up implementation of TB-IC strategies 3.3 Strengthened TB-IC monitoring & measurement 3.4 Improved TB-IC human resources
4	PMDT	4.1 Improved treatment success of MDR-TB
5	TB/HIV	<ol style="list-style-type: none"> 5.1 Strengthened prevention of TB/HIV co-infection 5.2 Improved diagnosis of TB/HIV co-infection 5.3 Improved treatment of TB/HIV co-infection
6	Health Systems Strengthening	<ol style="list-style-type: none"> 6.1 TB control is embedded as a priority within the national health strategies and plans, with matching domestic financing and supported by the engagement of partners 6.2 TB control components (drug supply and management, laboratories, community care, HRD and M&E) form an integral part of national plans, strategies and service delivery
7	M&E, OR & Surveillance	<ol style="list-style-type: none"> 7.1 Strengthened TB surveillance 7.2 Improved capacity of NTPs to analyze and use quality data for the management of the TB program 7.3 Improved capacity of NTPs to perform operations research
8	Drug supply & management	8.1 Ensured nationwide systems for a sustainable supply of drugs

In order to monitor progress, TB CARE has developed two levels of outcome indicators; core and technical area specific. While five core indicators address USAID's three targets mentioned above, 55 technical area specific indicators address every expected outcome defined under eight technical areas. For each technical area at least one outcome and a SMART (Specific, Measurable, Attainable, Realistic and Temporal) indicator to monitor the progress have been developed. Annually TB CARE collects data and reports all six core and most of the 55 technical area indicators where quality data are available from all country and regional projects. This report provides both results of the baseline as of end of September 2010 and results of program year 1 as of the end of September 2011.

4. TB CARE I's Contribution to USAID Targets

USAID's goal is to halve TB prevalence and death rates in USAID assisted countries by 2015 (relative to the 1990 baseline) and is consistent with the Global Plan to STOP TB. Three key targets have been identified for achieving this goal:

- Sustain or exceed 84% case detection rate and 87% treatment success rate of those cases in countries with established USAID TB programs;
- Treat successfully 2,550,000 new smear-positive TB cases;
- Diagnose and treat 57,200 new cases of MDR-TB

TB CARE I contributes to these three targets through country projects (20 during APA1) and indirectly through a variety of regional and core projects. There are five core indicators which are used to measure TB CARE I's contribution to these targets:

1. Number of cases notified (all forms and new smear-positive)
2. Case detection rate
3. Treatment success rate
4. Number of MDR cases diagnosed and put on treatment
5. Number (and percent) of confirmed TB cases among HCWs

It should be noted that these are national-level indicators; TB CARE I is assisting NTPs to improve the prevention and control of TB as an end result. Therefore it is difficult to measure to what extent changes in these indicators are attributable only to TB CARE I interventions. Moreover, in some countries TB CARE I operates on a selected range of technical areas and the geographic area is not always country-wide. The technical area indicators can help to tease out TB CARE I's impact in specific areas. Tables 3-5 summarize baseline data for 18 TB CARE I countries (Pakistan has been excluded since TB CARE I's project is limited to only completing the TB prevalence survey and Uzbekistan has been excluded since the scope and activity plans have not been finalized yet.). The TB-IC indicator, number (and percent) of confirmed TB cases among HCWs, will be discussed in the IC section due to the limited data available.

Number of cases notified (all forms and new smear-positive)

The table below shows that about one million TB cases (all forms) and 466,000 new smear-positive cases were notified in 2010 across all TB CARE I countries.

Table 3: Number of cases notified in 2010 (all forms, new cases and new smear-positive cases) per WHO 2011 Global TB Report

Country	# of cases notified (all forms)	# of new cases notified	# of all new SS+ cases reported to the NTP	# of all new SS+ male cases reported to the NTP	# of all new SS+ female cases reported to the NTP	Male/ Female ratio
Afghanistan	28,029	26,913	12,947	4,246	8,701	0.5
Botswana	7,013	6,560	3,295	1,851	1,444	1.3
Cambodia	40,460	39,994	17,454	9,348	8,106	1.2
Djibouti	4,172	3,972	1,181	769	412	1.9
Dom. Rep.	3,964	3,640	2,159	1,310	849	1.5
Ethiopia	154,694	152,030	46,634	26,259	20,375	1.3
Ghana	14,607	14,124	7,656	5,097	2,559	2.0
Indonesia	300,659	296,272	183,366	109,166	74,200	1.5
Kazakhstan	19,703	15,641	4,769	2,928	1,841	1.6
Kenya	99,272	95,604	36,260	22,238	14,022	1.6
Kyrgyzstan	5,652	5,308	1,645	967	678	1.4
Mozambique	43,558	42,126	20,097	U	U	U
Namibia	11,281	10,103	4,464	2,486	1,968	1.3
Nigeria	84,121	81,454	45,416	27,523	17,893	1.5
South Sudan*	6,424	2,267	2,228	U	U	U
Vietnam	94,867	88,033	52,145	38,753	13,536	2.9
Zambia	44,154	42,306	12,639	U	U	U
Zimbabwe	44,209	42,872	11,654	6,113	5,541	1.1
Total	1,006,839	969,219	466,009	259,054	172,125	1.5

*S. Sudan data is self reported 2010 data (no WHO-reported data available)

Understandably, Indonesia has the highest number of TB cases (300,659 all forms) and Dominican Republic reported the lowest number of TB cases (3,964 all forms). Disaggregating new smear-positive cases by gender reveals that the ratio of male to female was highest in Vietnam (2.9) and lowest in Afghanistan (0.5) while on average it was 1.5 in TB CARE I countries except for Mozambique and South Sudan where disaggregated data was not available for 2010.

Case Detection and Treatment Success Rates

Table 4 below summarizes 2010 Case Detection Rates (CDR) and Treatment Success Rates (2009) (WHO data) as many countries did not have final 2010 data available.

Table 4: Case Detection (all forms, 2010) and Treatment Success Rates (confirmed cases, 2009) as per WHO TB Report 2011

Country	CDR (2010) %	TSR (2009) %
Afghanistan	47	87
Botswana	70	79
Cambodia	65	95
Djibouti	76	79
Dominican Republic	59	85
Ethiopia	72	84
Ghana	70	87
Indonesia	66	91
Kazakhstan	82	62
Kenya	82	86
Kyrgyzstan	66	83
Mozambique	34	85
Namibia	82	85
Nigeria	40	83
South Sudan	65	78
Vietnam	54	92
Zambia	73	91
Zimbabwe	56	79
Average	64	88

The table above shows a range of CDR 40% in Nigeria to 82% in Kazakhstan and Kenya while no TB CARE I country has reached 84% CDR target. The table also shows a range of TSR from 62% in Kazakhstan to 95% in Cambodia; six TB CARE I countries have reached or exceed 87% TSR target. Based on the total cases treated across all countries, the average treatment success rate is 88%, which is above the USAID target of 87%. However, this is heavily impacted by the treatment success in high-burden countries like Indonesia. There are still 14 countries which are below the 87% target. The median treatment success rate is 85%, which better reflects the situation across TB CARE I countries. The table below shows that at TB CARE I baseline not one TB CARE I country has reached both 84% CDR and 87% TSR while 67% (12 countries) have reached neither of those two targets.

Table 5: TB CARE I Countries towards reaching CDR and TSR targets

Source: WHO TB Report 2011)		87% Treatment Success Rate (Confirmed cases, 2009)	
		Reached	Not reached
84% Case Detection Rate (All forms, 2010)	Reached	0%	0%
	Not Reached	33% Afghanistan, Cambodia, Ghana, Indonesia, Vietnam, Zambia	67% Botswana, Dominican Republic, Djibouti, Ethiopia, Kazakhstan, Kenya, Kyrgyzstan, Mozambique, Namibia, Nigeria, South Sudan, Zimbabwe

Number of MDR cases diagnosed and put on treatment, 2010

In 2010, before TB CARE I began, 11,241 MDR-TB cases were diagnosed and 7,912 cases were put on treatment (Table 6). Kyrgyzstan (1,471) and Kazakhstan (4,811) are treating the largest number of patients whilst countries like South Sudan (zero put on treatment) and Ghana (2) have minimal PMDT in place. Nigeria and Zambia are in the early stages of developing an MDR-TB surveillance system so national data is not available for 2010.

Table 6: Number of MDR Cases Diagnosed and put on Treatment, 2010

Country	Number of all MDR and XDR cases diagnosed	Number of all MDR and XDR cases put on treatment
Afghanistan	31	15
Botswana	106	92
Cambodia	31	31
CAR-Kazakhstan	7,383	4,811
CAR-Kyrgyzstan	1,471	1,471
CAR-Uzbekistan	1,023	628
Djibouti	8	8
Dominican Republic	108	101
Ethiopia	140	85
Ghana	14	2
Indonesia	182	142
Kenya	112	67
Mozambique	165	86
Namibia	222	222
Nigeria	N/A	23
South Sudan	3	0
Vietnam	202	101
Zambia	N/A	N/A
Zimbabwe	40	27
Total	11,241	7,912

Although several countries show 100% of MDR-TB patients have been put on treatment, apart from Kyrgyzstan, the numbers diagnosed are still relatively low. The limitation of putting more cases on treatment is not only due to the lack of second line drugs (SLDs); in Ethiopia and Nigeria, drugs are available, but treatment is limited by the number of beds in the MDR treatment facilities.

5. TB CARE I Technical Areas

TB CARE has developed indicators to address the expected outcomes defined under each technical area. Below is a summary of key baseline data and Year 1 results by technical area. Achievements from core and regional projects are also highlighted here; country-specific achievements in these technical areas can be found in the country section (page 38) of this report.

5.1 Universal and Early Access

One of the main priorities for the first year of TB CARE I is to ensure that all TB CARE I-supported countries are contributing to Universal Access to Quality Care. All country projects except Djibouti and Pakistan have activities focusing on universal access. Activities work towards one of three expected outcomes: 1) Increased demand for and use of high quality TB services and improve the satisfaction with the services provided (Population/Patient Centered Approach), 2) Increased quality of TB services delivered by all care providers (Supply), and 3) Reduced patient and service delivery delays (Timing). Several interventions developed under TB CAP largely addressed the “supply side” of TB services (including PPM). Two core projects in Year 1 are implemented to improve universal access with a focus the “patient demand side”. These core activities complement each other and build on current toolkits, promoting their use at the country level e.g. PPM toolkit, Patient Centered Approach Package, etc.

One of these projects concerns the development of a universal access planning framework for use at national and decentralized levels. It helps NTPs to systematically organize, plan, prioritize and develop programs to improve the access to and quality of care. The framework assists in mapping vulnerable and most-at-risk groups, identifying gaps in patient access and barriers to services, and provides guidance on how to remove these barriers. This project is based on the evaluation of best practices to date. TB CARE I will further develop this packaged approach to assess country situations in terms of people’s behavior and access to services, selecting and adapting interventions appropriate for that country setting.

Another priority of TB CARE I is to help countries to adopt and implement PPM tools which were developed under TB CAP. The PPM tools that have most widely been piloted and/or implemented in the TB CARE I-supported countries during Year 1 are the “Operational Guidance Document for Engaging Other Providers”, the tool for “National Situational Analysis”, and the “Guidance

for Engaging Hospitals in TB Control". PPM in TB/HIV collaboration and the PPM M&E tool are used in several countries (five and eight countries respectively). Surprisingly only 7 of 18 countries reported activities related to ISTC implementation (Ghana, Indonesia, Kenya, Kazakhstan, Nigeria, Vietnam and Zimbabwe). It seems that more efforts need to be made to assist countries in the implementation of the international standards. Six countries have not adopted any of the tools from the PPM toolkit (see Annex 2 for full results on all Universal Access indicators).

TB CARE I is applying patient centeredness as one of its approaches to improve universal access to TB care for all people. This approach is captured in three indicators addressing 1) Quality of services from the patient's perspective, 2) Costs incurred by patients for TB care and 3) Implementation of the patient's charter.

As expected, and according to the baseline data no TB CARE I country has yet collected data on the quality of TB services from the patient perspective. Four countries reported having collected data on the costs incurred by TB patients—Dominican Republic, Ghana, Kenya and Vietnam. These countries all participated in the TB CAP implementation activities of the Tool to Estimate Patient's Costs in 2008 and 2009. Nine countries out of 18 have reported adopting the "Patient's Charter" but few have actually piloted or implemented the tool yet (Table 7).

Table 7: TB CARE I countries where The Charter has officially been adopted and/or disseminated

Year	Number	Percent	Adopted/disseminated	Not adopted/disseminated
Baseline (Sep 2010) & End of Year 1 (Sep 2011)	9	50%	Cambodia, Dominican Republic, Ghana, Indonesia, Kenya, Namibia, South Sudan, Vietnam, Zimbabwe	Afghanistan, Botswana, Djibouti, Ethiopia, Kazakhstan, Kyrgyzstan, Mozambique, Nigeria, Zambia

Inroads have been made with the implementation of community-based DOTS (CB-DOTS); all countries (except Djibouti, Dominican Republic and Zimbabwe) reported at the start of TB CARE I that CB-DOTS was being implemented at some level. Djibouti has plans to pilot a CB-DOTS program in the future and Ethiopia scaled up implementation of CB-DOTS in Year 1 (Table 8).

Table 8: Status of CB-DOTS in TB CARE I countries

Year	Number scaled-up	Percent scaled-up	Scaled-up	Piloted	Plans ready	No plans
Baseline (Sep 2010)	10	55%	Cambodia, Ghana, Indonesia, Kazakhstan, Kenya, Kyrgyzstan, Namibia, Nigeria, Vietnam, Zambia	Afghanistan, Botswana, Ethiopia, Mozambique, South Sudan	Djibouti	Dominican Republic, Zimbabwe
End of Year 1	11	61%	Cambodia, Ethiopia , Ghana, Indonesia, Kazakhstan, Kenya, Kyrgyzstan, Namibia, Nigeria, Vietnam, Zambia	Afghanistan, Botswana, Mozambique, South Sudan	Djibouti	Dominican Republic, Zimbabwe

In Year 1, TB CARE I started implementation of a core project to implement and adapt the Patient Centered Approach package, which was developed under TB CAP. The package includes a patient centered strategy and five tools—QUOTE TB Light to measure the quality of services from the patient perspective, the tool to Estimate Patient Costs and Patient's Charter, TB/HIV Literacy tool kit and Practical Guide to Improve Quality TB Patient Care. Implementation of the package follows a two year timeline with actual country activities planned for Year 2 and includes five TB CARE I countries—Cambodia, Indonesia, Mozambique, Nigeria and Zambia. At the end of two years we expect that each of the five countries will have implemented three tools in the package. An evaluation of the implementation will be done to assess the effectiveness, strengths and weaknesses of the tools. TB CARE I intends to use the results to adapt the tools where necessary and then scale up implementation to additional TB CARE I countries. (Photo: Examination of a TB patient, Indonesia.)

Success Story - The Role of Traditional Healers in Intensified TB Case Finding, Mozambique

In Mozambique there are strong beliefs in the power of traditional healing and witchcraft, which means that most TB suspects go to traditional healers for a diagnosis rather than to a healthcare facility. This belief in witchcraft, traditions and customs means that more people are dying of TB than any other disease. Involving 'The National Traditional Healers Association' and the healers themselves is critical to TB case finding and hence reducing TB-related mortality throughout the country.

In a target TB CARE I province, a group of traditional healers were trained in the signs and symptoms of TB and treatment services. Martina Andre Mathlavane, who has been practicing as a traditional healer for more than 40 years, was part of the group who attended the training. For her the training not only brought to light the importance of involving clinical diagnosis in some of her patients, but it adds to her credibility as now most of her patients are being cured with TB drugs and she is only acting as their monitor. One recent TB case Martina was monitoring is that of Rosa Julay Zitha.

When Rosa became very sick, she suspected witchcraft and was directed to visit Martina. When Rosa arrived she only weighed 43kg and was pale and sick. Seeing her symptoms and the way she was, and with the knowledge acquired from the training, Martina quickly referred her to the hospital. Rosa could not understand at first, but Martina was clear to her on the importance of doing a clinical diagnosis. In July 2011, Rosa was tested and diagnosed with TB. She soon started treatment and Martina acts as her DOT monitor. She also tested positive for HIV and therefore receives ART as well.

In the 3 months since she began treatment, she has gained 8 kg and counting. In her own words Rosa, confesses that, "before I went to the hospital I was so sick and I believed that what I felt was linked to my relatives and traditional customs, this led me to seek the best of traditional healers known and I came to Mozambique. What surprised me is that rather than getting treated the traditional way which I thought was best, I was taken to hospital. The treatment I'm taking is making me feel so much better now and for the first time I'm gaining weight and able to walk by myself without support."

Rosa's case is one out of five Martina has already been involved with. She has referred all the cases to the hospital and she also monitors her patients for the whole treatment period and is involved in all the control stages as well. The local TB supervisor at the hospital recognizes the importance of involving the traditional healers in the fight to stop the spread of TB. The district saw 21 TB suspects in the last quarter being referred by traditional healers, of which 10 were diagnosed as having TB and are already in treatment.

Success Story - Childhood TB Gets Much Needed Attention, Cambodia

Cambodia developed guidelines for the management of childhood TB in 2008. Although the guidelines contain provisions for contact screening and management, they have seldom been implemented. TB CARE I has been supporting the implementation of the guidelines in nine operational districts (OD) with a total population of 2.3 million. The activities of the childhood TB initiative are: an orientation workshop, guideline/Tuberculin skin testing (TST) training, contact tracing by health centers and Community DOTS partners, referral of TB contacts, diagnosis, treatment and supervision.

Children waiting to be seen by a TB physician at a referral hospital..... Preah Net Preah, a poor and remote district with a population of 141,000 in Banteay Meanchey province, is one of the ODs where TB CARE I is implementing the childhood TB project. People usually travel from their villages to nearby health centers or go to district hospital. With the support of TB CARE I in June 2011, 19 district hospital staff were trained in TST, they were also supplied with tuberculin and films to perform a full diagnostic for the diagnosis of childhood TB according to the NTP guidelines. Health center and CB-DOTS workers conduct home visits of registered TB patients to identify and refer children with TB symptoms to district hospital on the pre-appointed day. At the district hospital, the referred children are evaluated by TB physicians. In July and August 2011, 740 children suspects were referred to the district hospital for diagnosis. Of these, 212 children were diagnosed (29%) with TB. In comparison, during the previous quarter, 80 children were evaluated for TB out of which 24 (30%) were diagnosed with TB. Although a similar ratio of children was diagnosed with TB, TB CARE's efforts have led to a nine-fold increase in the detection of children with TB. The children's parents/care-givers expressed their happiness with the availability of TB services in the district hospital, which is near to their village. In the past, they had to go to provincial referral hospital, which is much further away and meant they had to spend more money on both transport and accommodation.

.....
A health worker administering a tuberculin skin test to a child suspected of having TB

5.2 Laboratories

TB CARE takes a systems approach to improving national TB laboratory networks by addressing policy development, management, supervision and External Quality Assurance (EQA) systems for smear microscopy, culture and drug susceptibility testing (C/DST) and last but not least the introduction of new technologies such as GeneXpert. TB CARE also supports laboratory refurbishment, expansion of light-emitting diode (LED) microscopy and accelerated introduction of new rapid diagnostic tests, including those for MDR-TB. This approach supports the three expected outcomes for laboratory strengthening: 1) Ensured capacity, availability and quality of laboratory testing to support the diagnosis and monitoring of TB patients, 2) Ensured availability and quality of technical assistance and services, and 3) Ensured optimal use of new approaches for laboratory confirmation of TB and incorporation of these approaches in national strategic laboratory plans. TB CARE I works towards these outcomes in 16 countries, one regional project and eight core projects. To measure progress towards these outcomes, the following indicators are highlighted in this section:

- Number of TB CARE I-supported countries with an established link with one of the existing Supranational Reference Laboratories (SRLs);
- Number of SRLs that are meeting the terms of reference including conducting TA visits and providing proficiency testing panels;
- A national strategic plan has been developed and implemented;
- Number of laboratories with working internal and EQA programs for tests that they provide including Smear Microscopy.

Supra-National TB Reference Laboratory Network

11 TB CARE I-supported countries established a formal link with one of the 29 existing SRLs (Botswana, Cambodia, Djibouti, Ghana, Indonesia, Kazakhstan, Kyrgyzstan, Nigeria, Vietnam, Zambia and Zimbabwe). This has resulted in six countries receiving supervision visits from the respective SRL during Year 1 (those countries in bold above). An important aspect for Year 2 will be to further strengthen the link of countries with an SRL and especially to include an EQA system/supervisory system for new molecular diagnostic techniques such as GeneXpert.

To address the limited number (3) of SRLs on the African continent, under TB CAP, the National Reference Laboratories (NRLs) of Benin and Uganda benefited from intensive assistance to become SRLs, which has been continued in Year 1 of TB CARE I. Due to the extensive technical improvements achieved, both laboratories were officially accepted by WHO as candidate SRLs and have entered the 2-year probation period during Year 1. ISO15189 accreditation is still outstanding and the plan is that both laboratories are further supported in both Year 2 and 3 to achieve accreditation and official acceptance as SRLs.

TB Laboratory Strategic Planning

Significant progress in developing or updating the National TB Laboratory Strategic Plan in Year 1 was made in four countries (Indonesia, Kenya, Namibia, Zambia – see Table 9). Because a TB Laboratory Strategic Plan is a fundamental requirement for activity planning, more emphasis will be given to support countries in its development or improvement in Year 2. Starting in Year 2, the development of a TB Laboratory Strategic Plan by NTPs and partners at country level will be supported by a “Practical Handbook for TB Laboratory Strategic Planning”, which is being developed under a TB CARE I core project and will be completed in Year 2.

Table 9: Status of national laboratory strategic plans in TB CARE I countries

Year	Number strategic plan available	Percent strategic plan available	Strategic and annual implementation plan and budget are available	Strategic plan is ready but annual implementation plan and budget are not available	Strategic plan is not available
Baseline (Sep 2010) & End of Year 1 (Sep 2011)	7	39%	Botswana, Ethiopia, Ghana, Nigeria, Vietnam	Cambodia, Dominican Republic	Afghanistan, Djibouti, Indonesia, Kazakhstan, Kenya, Kyrgyzstan, Mozambique, Namibia, South Sudan, Zambia, Zimbabwe

Capacity Building in Smear Microscopy and EQA

The major focus of laboratory country work during Year 1 was the improvement of existing diagnostic techniques such as smear microscopy, including the support of EQA systems.

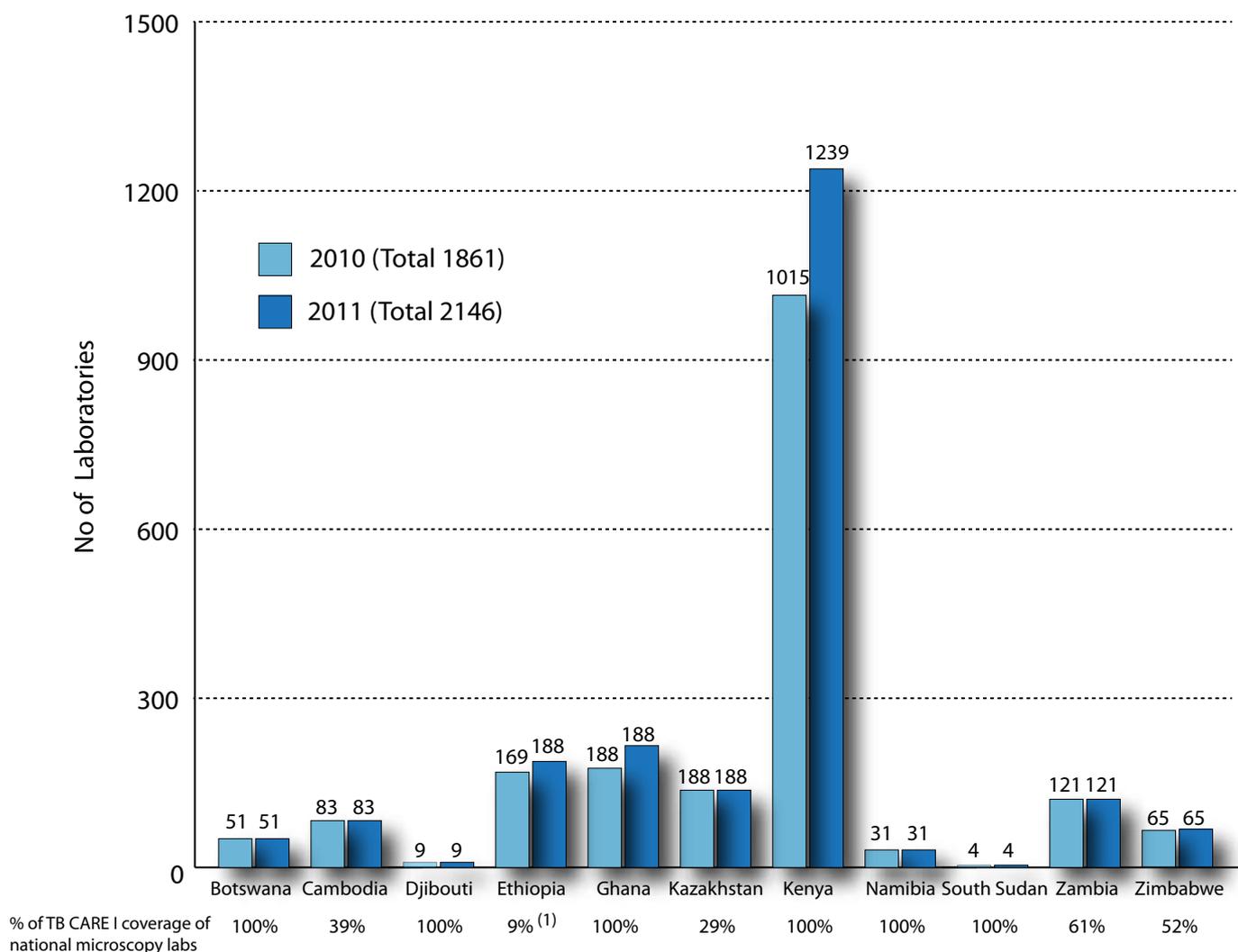
For the improvement of smear microscopy, trainings were conducted on technical aspects and EQA. Furthermore, operational aspects of smear microscopy EQA, such as facilitating supervision visits or the provision of materials and test panels were supported (Table 10).

Table 10: Capacity building activities in TB CARE I countries

Activities	Countries
Technical training of smear Microscopy	7 (Botswana, Ethiopia, Ghana, Indonesia, Mozambique, Nigeria, South Sudan)
EQA training	5 (Botswana, Indonesia, Kenya, Mozambique, Zambia)
Support EQA operations	5 (Cambodia, Djibouti, Ethiopia, Indonesia, Zambia)

In 11 countries 2,546 out of 2,946 laboratories were covered (86.4%) under EQA nationwide. In TB CARE I geographical areas the combined efforts led to an increase of EQA coverage of smear microscopy from 81% in 2010 to 84% in 2011. Figure 1 shows the number of smear microscopy laboratories enrolled in an EQA program in 2010 (light blue) and 2011 (dark blue) in TB CARE I geographical areas. The box below the graph indicates the percent laboratory coverage by TB CARE I of all national laboratories performing smear microscopy in 2011. Countries, from which data was not yet available, were excluded from analysis (i.e. Afghanistan, Indonesia, Kyrgyzstan, Mozambique, Nigeria and Vietnam). Further EQA data is available in Annex 2.

Figure 1: Laboratories with EQA programs for smear microscopy in TB CARE I-supported areas



(1) Ethiopia: 2010 data only.

Implementation of GeneXpert

Two core projects focused on support of GeneXpert implementation in Year 1. WHO developed a global guidance document to support the “Rapid Implementation of the Xpert MTB/RIF Diagnostic Test”, which is available online: <http://www.tbcare1.org/publications>

A second core project was initiated for rapid, intensified implementation of GeneXpert in three selected countries (Vietnam, Indonesia and Nigeria) for documenting lessons learnt to inform further scale up. Close relation with Cepheid (France) was established for training and procurement purposes. Based on the WHO Rapid Implementation Guide, an extensive implementation package was developed comprising training curricula and material for different levels of health staff, M&E documents and SOPs. Technical assistance was provided to the countries to support the development of diagnostic algorithms and clinical guidelines as well as the technology's integration into the national systems. The first training curricula were developed in close collaboration with the regional training institute in Zaria, Nigeria. Following the training on GeneXpert, Indonesia and Nigeria started implementation and will begin to use the device for routine analysis early in Year 2, which will be closely monitored and evaluated during the second year of this project. In Vietnam we face some operational challenges that impede the introduction of GeneXpert as planned.

Apart from Nigeria, Indonesia and Vietnam, ten other TB CARE I countries started supporting the national implementation of GeneXpert in Year 1 (Botswana, Cambodia, Kazakhstan, Kyrgyzstan, Djibouti, Dominican Republic, Ethiopia, Kenya, Mozambique and Zambia), which will continue in Year 2. TB CARE I will be supporting these countries through regional workshops on GeneXpert implementation in Year 2.

Additional monitoring of GeneXpert procurement will be undertaken in Year 2. Furthermore, a common GeneXpert M&E system will be implemented in all USG-supported countries to monitor quality and determine the impact of GeneXpert introduction.

Laboratory Accreditation Guide & Roadmap

During Year 1 a TB-specific implementation guide was developed to assist and guide both National TB Reference Laboratories and other TB laboratories (public or private and with any range of services) in the implementation of internationally recognized laboratory standards, such as ISO15189, which eventually can lead to ISO15189 accreditation. In alignment with other initiatives towards laboratory accreditation such as the SLIPTA checklist (formerly the WHO-AFRO checklist), this guide provides a comprehensive implementation roadmap that directly relates existing laboratory tools to accreditation requirements.

The guide was launched at the 42nd Union World Conference on Lung Health in Lille, France and is available online (<http://www.gliquality.org/>). In Year 2, the guide will be piloted in the Benin SRL, further refined and then rolled-out internationally.

5.3 Infection Control

During TB CAP, the development of national guidelines consistent with the 2009 WHO Global Policy on TB-IC in Healthcare Facilities, Congregate Settings and Households was emphasized. TB CARE I aims to incorporate these TB-IC guidelines in existing national Infection Prevention & Control (IPC) and Occupational Health & Safety policies and to accelerate implementation of effective TB-IC measures at facility level. Therefore, the expected outcomes for IC are as follows:

- 1) Increased TB-IC political commitment,
- 2) Scaled-up implementation of TB-IC strategies,
- 3) Strengthened TB-IC monitoring & measurement, and
- 4) **Improved TB-IC human resources.**

TB CARE I works to strengthen IC practices in 16 countries, as well as through four core projects (two in collaboration with TB CARE II) and one regional project. Below is a summary of key indicators and Year 1 achievements in IC.

The TB CARE I M&E Framework defines a core indicator (the number of confirmed TB cases among HCWs) and eight other indicators for the TB-IC technical area. For most NTPs, this is not a routine indicator yet, but by introducing this indicator we hope to contribute to the well being of HCWs. The results of the baseline (see Annex 2) show that so far only Kazakhstan has reported on TB occurrence among HCWs (198 cases in 2010). However, these results from Kazakhstan differ from what is reported in the 2011 Global TB Report. Lack of data from the other TB CARE I countries indicates the need to set up systems to collect this information.

Table 11: TB CARE I countries that have national TB-IC guidelines that have been approved and disseminated in accordance with the WHO TB-IC policy

Year	Number	Percent	Achieved	Not Achieved
Baseline (Sep 2010)	9	50%	Afghanistan, Botswana, Ethiopia, Ghana, Indonesia, Kenya, Namibia, Nigeria, Zambia	Cambodia, Dominican Republic, Djibouti, Kazakhstan, Kyrgyzstan, Mozambique, South Sudan, Vietnam, Zimbabwe
End of Year 1 (Sep 2011)	10	56%	Afghanistan, Botswana, Ethiopia, Ghana, Indonesia, Kenya, Namibia, Nigeria, Vietnam , Zambia	Cambodia, Dominican Republic, Djibouti, Kazakhstan, Kyrgyzstan, Mozambique, South Sudan, Zimbabwe

The baseline and Year 1 data highlight over opportunities for investment. As seen in the Table 11 above, half of the TB CARE I countries in 2010 had national TB-IC guidelines that had been approved and disseminated in accordance with the WHO TB-IC policy; in Year 1, guidelines meeting these criteria were developed and disseminated in Vietnam.

Table 12: TB CARE I countries with TB-IC measures included in the overall national IPC policy

Year	Number	Percent	Achieved	Not Achieved
Baseline (Sep 2010) & End of Year 1 (Sept 2011)	7	39%	Cambodia, Dominican Republic, Ethiopia, Ghana, Kazakhstan, Namibia, Zambia	Afghanistan, Botswana, Djibouti, Indonesia, Kyrgyzstan, Mozambique, Nigeria, South Sudan, Vietnam, Zimbabwe *Kenya does not have a National IPC policy document; only national guidelines are available.

As seen in the Table 12 above, only seven countries have a national IPC policy that has TB-IC measures included. There was no change between baseline and the end of Year 1. This is an area where TB CARE I could provide assistance in the future.

Table 13: TB CARE I countries that has a team of trained trainers in TB-IC available

Year	Number	Percent	Achieved	Not Achieved
Baseline (Sep 2010)	12	67%	Cambodia, Ethiopia, Ghana, Indonesia, Kazakhstan, Kenya, Mozambique, Namibia, Nigeria, Vietnam, Zambia, Zimbabwe	Afghanistan, Botswana, Djibouti, Dominican Republic, Kyrgyzstan, South Sudan
End of Year 1 (Sep 2010)	13	72%	Afghanistan , Cambodia, Ethiopia, Ghana, Indonesia, Kazakhstan, Kenya, Mozambique, Namibia, Nigeria, Vietnam, Zambia, Zimbabwe	Botswana, Djibouti, Dominican Republic, Kyrgyzstan, South Sudan

Before TB CARE I, 12 out of 18 countries had a team of trained trainers in TB-IC available (See Table 13 above); Afghanistan established a team in Year 1, bringing the total number to 13 (72%).

The TB CARE I and II coalitions have worked closely together on two core projects. One joint core project developed guidance for measuring and monitoring active TB among HCWs as a proxy indicator for the reduction of TB transmission in health care settings. This resulted in a "Guide for Prevalence Studies Measuring TB among HCWs" and a draft guide for monitoring TB incidence among HCWs at country level. In Year 2 the draft incidence guide, which involves active screening methods, will be field-tested in three selected TB CARE countries. This guide will assist countries in recording and reporting reliable data to WHO, the Global Fund and TB CARE regarding the occurrence of active TB among HCWs. At the same time countries are encouraged to use the guide for prevalence surveys measuring TB among HCWs. This can be used as a supplementary tool to identify areas within healthcare facilities that pose more of risk for nosocomial transmission to HCWs and, if appropriate, focus IC efforts on these higher risk areas. A prevalence survey also helps to highlight where HCW cases have been missed by regular screening. Such information can help to improve case finding among HCWs, lead to earlier case detection, and improve health worker access to appropriate facilities for diagnosis and treatment. The information can also be used to fine tune the recording and reporting of TB cases among HCWs and improve the surveillance of the cadre.

The second joint project developed a new approach to accelerate TB-IC scale-up. Consensus was reached on the Core Package for TB-IC, which should be easy to understand at the facility, district, and regional level. The key components of the Core Package are active case finding among inpatients and outpatients, reduction of exposure to airborne infectious particles, and rapid initiation of effective treatment. As proposed, the components are captured by the acronym, F-A-S-T: "Find cases Actively, Separate safely, and Treat effectively".

TB CARE I builds human capacity for TB-IC through two TB CARE I core projects and a Regional project which supports the establishment of a Center of Excellence (CoE) for PMDT and IC in the East African region. Twelve individuals, ten from the African region and two from the Asian region, have been enrolled in a mentoring program. After a refresher course in advanced TB-IC, an experienced TB-IC consultant mentors the trainee(s) on individually identified areas of specialized knowledge and consultancy skills during a mentored field visit. The mentor continues to provide distance mentoring as agreed in the personal development plan. Finally, the trainee conducts a consultancy alone. Three of the trainees have succeeded within the first year to complete the program. They will be recommended for TB TEAM.

An accompanying Training Manual for the Community-TB-IC Simplified Checklist has been developed and field-tested in Zambia and Kenya. Community-based models of care for MDR-TB patients are preferred to reduce nosocomial transmission of TB. Community health workers providing community-based care should be trained in conducting a risk assessment at the community level using the Simplified Checklist and in applying the appropriate TB-IC measures based on the risk assessment.

TB-IC modules and materials have been developed by CoE faculty members for state-of-the-art training courses in PMDT, TB-IC and Laboratory services. Sixteen participants from nine countries in the East African region have successfully participated in a basic TB-IC course.

The immediate next steps with regard to the Core Package are to identify a marketing and messaging group to further develop the acronym (F-A-S-T), develop materials, and to pilot test them in Year 2. Zambia and Tajikistan have been identified for full-scale trials of the Core Package approach. Although the approach will certainly raise awareness and increase commitment to accelerate the implementation of TB-IC at facility level, its scale-up must be demonstrated by an increasing number of key facilities that have appointed an IPC focal person, written a plan, allocated an adequate budget to implement the plan, and developed a monitoring system to evaluate its implementation. Measuring the baseline and scale-up of these key facilities in Year 1 has proven to be a challenge at country level and determining the best way to measure implementation and scale-up of the core package is important.

5.4 Programmatic Management of Drug Resistant TB (PMDT)

PMDT is a major priority for TB CARE I. The program recognizes the urgent need for effective new approaches and focuses on accelerating PMDT scale up through global, regional and country-specific efforts. There is one expected outcome for PMDT that the program strives for - improved treatment success of MDR-TB. In line with this expected outcome, two core indicators, number of MDR-TB patients diagnosed and number put on treatment, illustrate the importance of this technical area. These indicators will measure the program's contribution to the prevention and successful treatment of MDR-TB (see Section 4 for more on these core indicators). TB CARE I has 16 country projects that implement PMDT activities, as well as one core and two regional projects.

A first regional project is the CoE on PMDT in Kigali, Rwanda, established in 2010 by TB CAP and continuing in TB CARE I with financial support from USAID-East Africa. The CoE activities are implemented by three institutions: The Institute of HIV/AIDS Disease Prevention and Control (IHDP), The School of Public Health (SPH) of Rwanda University of Medicine and Health Sciences and the NRL of Rwanda) brought under one management, The Rwanda Biomedical Centre (RBC). The CoE led three critical training courses in Year 1:

1. 1st International course on basic TB-IC: The course provided guidance to the participants on how to: 1) Select appropriate IC related activities/measures in respective settings based on situational analysis, 2) Conduct risk assessments on airborne infections at the facility level to reduce transmission, and 3) Recommend necessary interventions during experience sharing activities among countries. 16 participants from National TB Programs (NTPs) in Ethiopia, Burundi, Kenya, Nigeria, Malawi, Tanzania, Uganda, Zambia, and Rwanda attended the training course.
2. 2nd International course on PMDT: A key achievement of this course was the local ownership of the training; international facilitators were unable to attend at the last minute, resulting in the regional and national facilitators taking the lead in all aspects of the course management, building capacity of the facilitators involved. The course was attended by 11 international participants specifically, Ethiopia, Kenya, Malawi, Tanzania, Uganda, Zimbabwe, Burundi and Rwanda.
3. 1st International course on laboratory diagnostics: This course was attended by 13 national and regional laboratory technologists from Burundi, Kenya, Malawi, Somalia, Uganda, Zambia and Zimbabwe. Topics included an overview of the global MDR-TB situation, bio-safety and IC, TB Culture and DST, reading and reporting of cultures, AFB microscopy EQA, quality assurance, solid culture, line probe assay and liquid culture by the MGIT 960 system.

A second regional project works in PMDT as well. The East, Central and Southern Africa Health Community (ECSA HC) is a regional inter-governmental organization established "to promote and encourage efficiency and relevance in the provision of health services in the region". In Year 1, a PMDT scale up workshop, co-organized with WHO, was held in Kigali for 13 countries. Five participating countries (Kenya, Uganda, Tanzania, Zambia and Swaziland) were supported by TB CARE I and eight (Malawi, Eritrea, Namibia, Rwanda, Ghana, Sierra Leone, Liberia and Angola) were supported by WHO. Expansion plans to scale up PMDT were prepared at the workshop and began to be implemented in each country. The 53rd Health Ministers Conference (HMC) will be held in November in Kenya where the member states have been asked to report on the progress made in implementing the resolutions from the 52nd HMC including those on TB/PMDT.

5.5 TB/HIV

TB CARE I assists NTPs to increase early case detection, expand intensified case finding, enhance airborne IC efforts and expand access to and integrate treatment of TB and HIV in co-infected individuals. This approach supports the three expected outcomes: 1) Strengthened prevention of TB/HIV co-infection, 2) Improved diagnosis of TB/HIV co-infection, and 3) Improved treatment of TB/HIV co-infection. TB CARE I works towards these outcomes in 16 countries and three core projects.

TB-IC in heavily-impacted HIV/AIDS communities is essential and is slow to be embraced. A 3-part "Community-based (CB) Simplified Checklist for TB-IC" was developed at the end of TB CAP. It was piloted in 2 countries under TB CAP, but as yet has not been used in any TB CARE I countries. During Year 1, two products were developed for the purpose of accelerating uptake of the Checklist: 1) a Training of Trainers (TOT) curriculum to facilitate uptake of the Checklist in high-burden TB-HIV settings, plus a step-by-step "how-to" handbook for community health workers so they are comfortable with and effectively use the Checklist. Successful "TB-IC at Community Level" TOTs were held in Zambia and Kenya to pilot and receive feedback on the Handbook. Scale-up plans for the Simplified Checklist for TB-IC were developed in each country. The final TOT curriculum and handbook will be available on the TB CARE I website in December 2011.

Scaling up TB/HIV collaborative activities with improved quality of care and reduced mortality is an important part of TB CARE I interventions. However, usage of TB-HIV mortality as a key quality of care indicator is so far limited. A core project of TB CARE I performed assessments in Kenya, Mozambique and Ethiopia to determine the current status of data on TB-HIV mortality (This is mortality in TB patients who are co-infected with HIV and die during the TB treatment). Assessments in Zambia and Namibia are ongoing. Preliminary results reveal data quality problems across all countries. Once assessment results are fully analyzed for availability, quality and usage of mortality data in TB/HIV co-infected patients, a strategy to improve current M&E systems for routine data collection of TB-HIV indicators will be developed.

The collected baseline data provides a snapshot of the TB/HIV situation across all TB CARE I countries, or more of a glimpse of what data are (or are not) available. The availability of TB/HIV data varies widely from country to country. Data on TB patients tested for HIV and HIV patients screened for TB are not widely available and the data that are reported can be questionable. Only Cambodia, Dominican Republic, Kyrgyzstan, Mozambique, Namibia and Nigeria collect data on IPT use among HIV-positive patients in their country (which is likely a reflection on the number of countries implementing the IPT approach as well).

The number of TB patients who were tested for HIV during treatment varies greatly as well (see table below). Although the average percentage of TB patients tested for HIV during TB treatment is 59% across all TB CARE I countries, it ranges greatly from 6% in Indonesia and 18% in Afghanistan to 91% in Kenya and 98% in Kazakhstan.

Table 14: TB patients who were tested for HIV during their TB treatment, 2010

Country	Total number of all TB patients registered who were tested for HIV during their TB treatment	Total number of TB patients registered	% of all TB patients registered who were tested for HIV during their TB treatment
Afghanistan	5,150	28,238	18%
Botswana	6,098	7,632	80%
Cambodia	32,237	41,628	77%
Djibouti	2,163	4,191	52%
Dominican Republic	U	4,160	
Ethiopia	66,955	149,508	45%
Ghana	10,442	15,145	69%
Indonesia	2,751	48,520	6%
Kazakhstan	24,248	24,844	98%
Kenya	96,930	106,083	91%
Kyrgyzstan	5,308	9,468	56%
Mozambique	40,554	46,174	88%
Namibia	9,535	12,625	76%
Nigeria	71,844	90,447	79%
South Sudan	3,608	6,424	56%
Vietnam	42,356	98,608	43%
Zambia	40,558	98,608	41%
Zimbabwe	38,047	47,685	80%
Total	498,784	839,988	59%

The use of ART and CPT among co-infected patients is better documented than other indicators. The table below shows the range in use across all TB CARE I countries.

Table 15: Registered HIV infected TB patients receiving ART or CPT during TB treatment, 2010

Country	All registered HIV-positive TB patients who receive ART (are started on or continue previously initiated ART)	Number of registered HIV-positive TB patients who receive (given at least one dose) CPT during their TB treatment	All registered HIV-positive TB patients	% Registered HIV-positive TB patients who receive ART (are started on or continue previously initiated ART)	% of Registered HIV-positive TB patients who receive (given at least one dose) CPT during their TB treatment
Afghanistan	7	7	7	100%	100%
Botswana	1,776	3,154	3,990	45%	79%
Cambodia	944	1,383	2,113	45%	65%
Djibouti	27	0	248	11%	0%
Dominican Republic	U	U	547	U	U
Ethiopia	3,823	6,723	9,809	39%	69%
Ghana	491	2,114	2,451	20%	86%
Indonesia	894	693	2,584	35%	27%
Kazakhstan	83	230	333	25%	69%
Kenya	19,331	39,952	40,069	48%	100%
Kyrgyzstan	44	14	87	51%	16%
Mozambique	6,250	23,738	24,574	25%	97%
Namibia	2,206	4,806	5,227	42%	92%
Nigeria	5,902	10,415	17,736	33%	59%
South Sudan	125	398	447	28%	89%
Vietnam	2,376	3,497	5,578	43%	63%
Zambia	13,418	22,129	27,209	49%	81%
Zimbabwe	8,658	20,993	22,745	38%	92%
Total	66,355	140,246	165,754	40%	85%

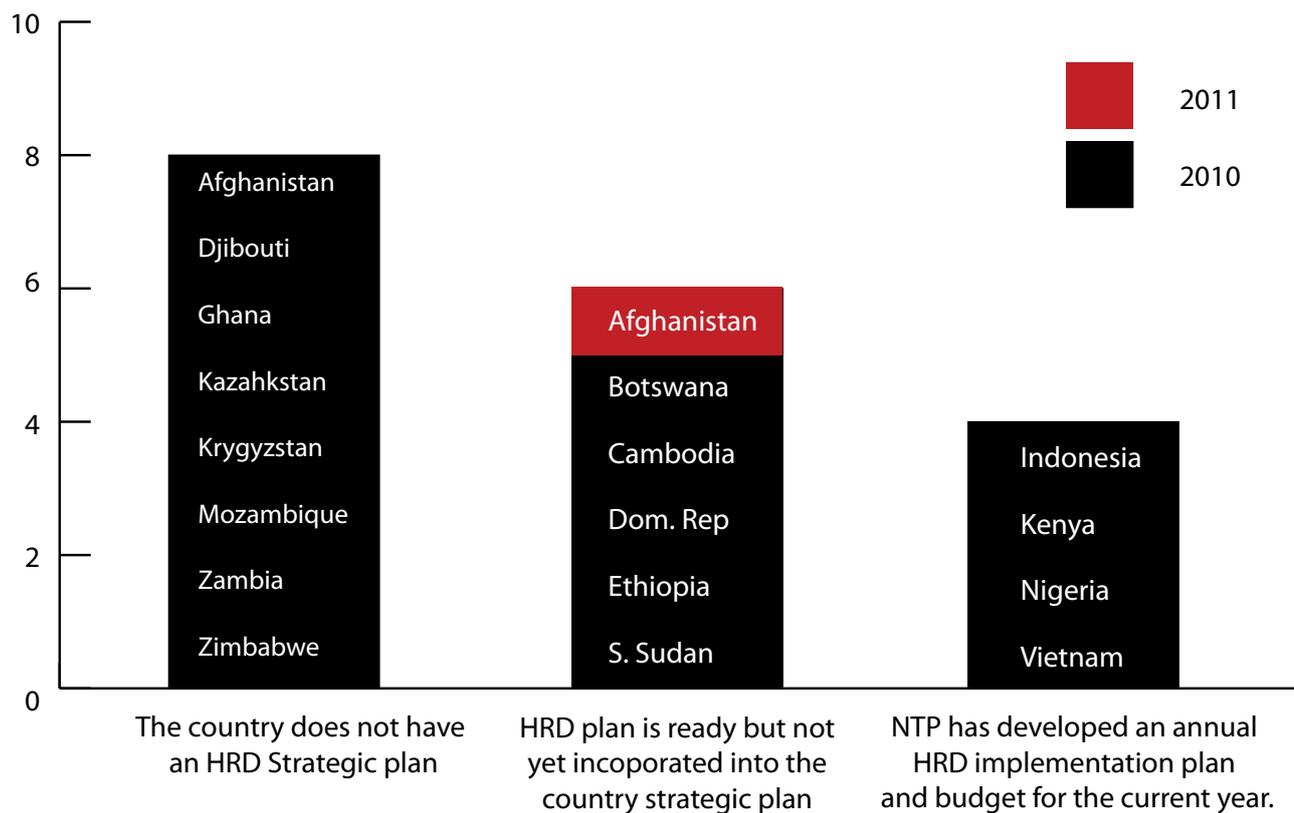
Although there are no core projects in Year 2 those focuses on TB/HIV, TB CARE I will continue to support national programs to strengthen prevention, diagnosis and treatment of TB/HIV co-infection.

5.6 Health System Strengthening (HSS)

TB CARE I applies a comprehensive approach to assist NTPs to strengthen health systems. The program focuses on 1) Helping NTPs to analyze overall health system weaknesses and address challenges in the service delivery, health workforce, information, medical products, technologies, financing and leadership/governance; 2) Developing in-country TA and HR capacity relevant to other programs as well as NTPs; 3) Assisting NTPs to develop integrated programs in routine service delivery settings that strengthen primary care and partnerships with affected communities; and 4) Developing effective linkages with private specialist physicians and academic institutions that serve as a model for engaging the private sector. Therefore, the expected outcomes for HSS are that TB control is embedded as a priority within the national health strategies and plans, with matching domestic financing and supported by the engagement of partners, and that TB control components (drug supply and management, laboratories, community care, HRD and M&E) form an integral part of national plans, strategies and service delivery. Due to the crosscutting nature of this technical area, 18 countries work in HSS, along with 5 core projects.

One Year 1 core project focused on training national leaders and their teams on HRD tools to enable them to implement the country's HRD strategy. A Virtual Leadership Development Program (VLDP) was conducted from June-September with eight teams: Afghanistan (2), Ghana, Indonesia, Kenya, Pakistan, Uganda and Zimbabwe. During the program, participants identified obstacles to implementing their national HRD plans and then developed implementation strategies to overcome the obstacles. A variety of HRD tools and resources were introduced and made available to the teams. At the end of the project six teams from Afghanistan (2), Ghana, Indonesia, Pakistan and Uganda had submitted their final action plans and began implementing them at country level. As seen in Figure 2, HRD strategic plans are in various stages of development in TB CARE I countries, although over half of the countries have some form of HRD plan implemented or in development.

Figure 2: Status of HRD strategic plan implementation



There are three core projects related to political commitment, budgeting and financing which are in process; these will be reported on next year. There is still work to be done in ensuring the sustainability of TB control; the table below shows that 39% of TB CARE I countries still do not have government funding allocated for anti-TB drugs (at baseline or at the end of Year 1).

Table 16: Government budget includes support for anti-TB drugs

Year	Number	Percent	Achieved	Not Achieved
Baseline (Sep 2010) & End of Year 1 (Sep 2011)	11	61%	Botswana, Dominican Republic, Ghana, Indonesia, Kazakhstan, Kenya, Namibia, Nigeria, Vietnam, Zambia, Zimbabwe	Afghanistan, Cambodia, Djibouti, Ethiopia, Kyrgyzstan, Mozambique, South Sudan

However, TB CARE I has made inroads into the areas of political and financial commitment in specific countries. In Indonesia for example, there was an increase in the national budget for the anti-TB drug supply by as much as 70% over the previous year. This budget increase is a direct consequence of the high level mission from international partners conducted after the Joint External Monitoring Mission in February 2011.

Another sign of progress is that 89% of countries have the TB care and control strategic plan embedded within national health strategies, including quantifiable indicators and budget allocations; Mozambique and Kyrgyzstan are the only countries who reported not having embedded plans. In addition, 83% of CCMs and/or other coordinating mechanisms in TB CARE I countries include TB civil society members and TB patient groups (Djibouti, Ethiopia and Mozambique being the exceptions).

In Year 1, TB CARE I trained in total 4,354 people on any aspects of TB across all country projects, 44% of which were female. The largest numbers trained were in Cambodia (883), Kenya (782) and Zimbabwe (739).

5.7 Monitoring & Evaluation, Surveillance and OR

TB CARE I's main approach is to work within and strengthen national M&E systems, building on the tools and approaches already available. TB CARE I core, regional and country projects have been designed and implemented to strengthen TB surveillance, improve capacity of NTPs to analyze and use quality data for the management of the TB program and improve capacity of NTPs to perform operations research. Data collected on TB CARE I performance indicators revealed that a form of "Electronic TB Treatment Register" is available at 44% of the NTPs in 18 TB CARE I countries (Table 17).

Table 17: TB CARE I countries that have an "electronic TB treatment register" at the NTP

Year	Number	Percent	Achieved	Not Achieved
Baseline (Sep 2010) & End of Year 1 (Sep 2011)	8	44%	Botswana, Djibouti, Indonesia, Kazakhstan, Kenya, Kyrgyzstan, Namibia, Vietnam	Afghanistan, Cambodia, Dominican Republic, Ethiopia, Ghana, Mozambique, Nigeria, South Sudan, Zambia, Zimbabwe

There is a need for clear guidance to countries on the assessment, design and implementation of comprehensive systems for the electronic recording and reporting for TB care and control. In Year I TB CARE I developed a core project to prepare such a guideline called "Guide on Electronic Recording and Reporting for TB Care and Control". The guide will be available in December 2011 and will be widely disseminated. TB CARE I will specifically use this guide as the basis for the scale-up of ERR in USAID priority countries. Another product which will also be available soon is the "Guide on Inventory Studies to Assess the Level of TB Under-reporting" which will help countries with the planning, design, implementation and analysis of inventory studies.

TB CARE I intends to ensure that all TB CARE I countries have a "National M&E plan" which is up-to-date based on global policy and M&E frameworks, and reflects the findings of the most recent systematic assessment of surveillance and programmatic data. In 2010 50% of TB CARE I countries had an up-to-date national M&E plan, with Ghana also joining this list in 2011 (Table 18).

Table 18: TB CARE I countries that have an up-to-date national M&E plan

Year	Number	Percent	Achieved	Not Achieved
Baseline (Sep 2010)	9	50%	Afghanistan, Djibouti, Ethiopia, Indonesia, Kenya, Namibia, Nigeria, Vietnam, Zambia	Botswana, Cambodia, Dominican Republic, Ghana, Kazakhstan, Kyrgyzstan, Mozambique, South Sudan, Zimbabwe
End of Year 1 (Sep 2011)	10	56%	Afghanistan, Djibouti, Ethiopia, Ghana , Indonesia, Kenya, Namibia, Nigeria, Vietnam, Zambia	Botswana, Cambodia, Dominican Republic, Kazakhstan, Kyrgyzstan, Mozambique, South Sudan, Zimbabwe

TB CARE I emphasizes that routine data quality audits (RDQA) should be conducted in all TB CARE countries every six months at national (or lower) level. While in 2010 nine countries conducted RDQA in the last six months, in 2011 Ghana and Nigeria also joined the list but Botswana dropped back for not conducting RDQA in 2011 (Table 19).

Table 19: TB CARE I countries that have conducted RDQA in the last six months

Year	Number	Percent	Achieved	Not Achieved
Baseline (Sep 2010)	9	50%	Botswana, Ethiopia, Indonesia, Kazakhstan, Kyrgyzstan, South Sudan, Vietnam, Zambia, Zimbabwe	Afghanistan, Cambodia, Djibouti, Dominican Republic, Ghana, Kenya, Mozambique, Namibia, Nigeria
End of Year 1 (Sep 2011)	10	55%	Ethiopia, Ghana , Indonesia, Kazakhstan, Kyrgyzstan, Nigeria , South Sudan, Vietnam, Zambia, Zimbabwe	Botswana , Cambodia, Djibouti, Dominican Republic, Kenya, Mozambique, Namibia

TB CARE I also intends to improve feedback mechanisms in countries. NTPs should be able to provide regular feedback from the central level to the provinces. Only seven countries have established some form of regular feedback from NTPs to provinces (Table 20). However, as yet there are still no TB CARE I countries where a regular, comparative, written feedback mechanism reaches service delivery units.

Table 20: TB CARE I countries where the NTP provides regular feedback from the central level to provinces

Year	Number	Percent	Achieved	Not Achieved
Baseline (Sep 2010) & End of Year 1 (Sep 2011)	7	39%	Ethiopia, Indonesia, Kazakhstan, Kenya, Mozambique, Nigeria, Vietnam	Afghanistan, Botswana, Cambodia, Djibouti, Dominican Republic, Ghana, Kyrgyzstan, Namibia, South Sudan, Zambia, Zimbabwe

M&E is critical to the success of NTPs and the TB CARE I projects. With a greater emphasis on showing governments and donors results, the M&E skills and activities of NTPs need to be strengthened. Countries can learn a lot from each other's experiences and practices, and TB CARE I can facilitate this exchange. A multi-year core project has been initiated in Year 1 for this purpose to foster the use of data for decision-making in TB CARE countries. As a first activity, in collaboration with USAID's **MEASURE Evaluation** program, a workshop "**Using TB Information for Decision Making for NTP and TB CARE M&E Officers**" was held in September in The Hague which was attended by 30 participants from 16 TB CARE I/II and TB 2015 countries. During the workshop participants developed mini M&E plans for their countries which will be implemented in Year 2. A virtual community of practice (CoP) will also be developed, bringing together all the NTP and TB CARE M&E officers to exchange knowledge, ideas, questions and new experiences with each other.

5.8 Drug Supply and Management

TB CARE I aims to ensure that nationwide systems are in place for a sustainable supply of drugs. TB CARE I works with all levels of the health system to build country capacity to ensure adequate, uninterrupted supplies of first- and second-line TB drugs and diagnostics within overall commodity management systems. TB CARE I builds on approaches, methodologies and tools developed and tested by coalition partners.

Table 21 below indicates that only 44% of TB CARE I countries have updated SOPs for TB drug logistics.

Table 21: TB CARE I countries where the NTP has updated SOPs for selection, quantification, procurement and management of TB medicines

Year	Number	Percent	Achieved	Not Achieved
Baseline (Sep 2010) & End of Year 1 (Sep 2011)	8	44%	Dominican Republic, Ethiopia, Ghana, Kenya, Nigeria, Vietnam, Zambia, Zimbabwe	Afghanistan, Botswana, Cambodia, Djibouti, Indonesia, Kazakhstan, Kyrgyzstan, Mozambique, Namibia, South Sudan

One essential component of supply management is the availability of stock information. Whilst 39% of TB CARE I countries have stock information on first-line TB drugs, only 22% of TB CARE I countries have stock information on second-line TB drugs (Table 22 and 23).

Table 22: TB CARE I countries where NTP has quarterly stock information on first-line drugs

Year	Number	Percent	Achieved	Not Achieved
Baseline (Sep 2010)	7	39%	Dominican Republic, Ghana, Indonesia, Kazakhstan, Namibia, Nigeria, Zimbabwe	Afghanistan, Cambodia, Djibouti, Dominican Republic, Ghana, Kenya, Mozambique, Namibia, Nigeria
End of Year 1 (Sep 2011)	7	39%	Dominican Republic, Ethiopia , Ghana, Kazakhstan, Kenya , Namibia, Nigeria	Afghanistan, Botswana, Cambodia, Djibouti, Indonesia , Kyrgyzstan, Mozambique, South Sudan, Vietnam, Zambia, Zimbabwe

Both Tables 22 and 23 reveal that maintaining updated stock information is a challenge. Between the baseline and 2011 while Ethiopia, Afghanistan and Kenya were able to produce updated stock information, Indonesia, Vietnam and Zimbabwe could not maintain quarterly updates on TB drug stocks.

Table 23: TB CARE I countries where NTP has quarterly stock information on second-line drugs

Year	Number	Percent	Achieved	Not Achieved
Baseline (Sep 2010)	4	22%	Indonesia, Kazakhstan, Namibia, Vietnam	Afghanistan, Botswana, Cambodia, Djibouti, Dominican Republic, Ethiopia, Ghana, Kenya, Kyrgyzstan, Mozambique, Nigeria, South Sudan, Zambia, Zimbabwe
End of Year 1 (Sep 2011)	4	22%	Afghanistan , Kazakhstan, Kenya , Namibia	Botswana, Cambodia, Djibouti, Dominican Republic, Ethiopia, Ghana, Indonesia , Kyrgyzstan, Mozambique, Nigeria, South Sudan, Vietnam , Zambia, Zimbabwe

It is expected that all MDR patients are put on treatment as soon as they are diagnosed. A lack of SLDs would delay the start of treatment. NTPs should be keeping a list of all MDR patients diagnosed, those put on treatment and also those waiting for treatment. Through country workplans TB CARE I will assist NTPs to keep updated information on treatment waiting lists for MDR-TB patients.

Although TB CARE I does not have any core or regional projects to address drug supply and management, eight TB CARE I countries have specific interventions in their workplans. In 2011 a 3-day meeting on Leadership and Management was conducted in The Hague, attended by 17 TB CARE I Country Directors to build capacity on technical and managerial expertise including procurement of SLDs.

As with the other seven technical areas, detailed information on country-specific achievements on this technical area can be found in the next section.

6. Country Project Highlights

TB CARE I implements projects in twenty countries around the world, providing significant reach across continents to help NTPs improve TB control. Table 24 illustrates the geographic coverage of the program. In total, there are nearly one billion people that live in the countries where TB CARE I works. In nine countries TB CARE I works at the national level and/or across all geographic areas of the country. In eleven countries (listed at the bottom of Table 24) the project supports the national level as well as specifically assigned geographic areas. TB CARE I coverage in these countries ranges from 24% to 74%, with an average of about 57% of the population living in these assigned geographic areas. Fifty-four percent of country funds to date have been obligated within Africa (\$25.3 million), 44% within Asia (\$20.6 million) and 3% in Latin America (\$1.3 million).

Table 24: Geographic coverage of TB CARE I by region, Year 1

Country	Total Population
Africa	
Botswana	1,849,681
Djibouti	800,000
Ethiopia	81,700,000
Ghana	24,223,431
Kenya	40,000,000
Mozambique	23,044,381
Namibia	2,143,411
Nigeria	160,967,501
South Sudan	9,026,000
Zambia	13,046,508
Zimbabwe	12,595,417
Africa subtotal	369,396,330
Asia	
Afghanistan	24,500,000
Cambodia	14,024,142
CAR - Kazakhstan	16,198,314
CAR - Kyrgyzstan	5,447,960
CAR - Uzbekistan	28,128,600
Indonesia	234,181,200
Pakistan	187,342,721
Vietnam	87,692,218
Asia subtotal	597,515,155
Latin America	
Dominican Republic	9,884,371
Latin America subtotal	9,884,371
Total:	976,795,856
Countries with a specific TB CARE I-supported area: Mozambique, Nigeria, Zambia, Zimbabwe, Afghanistan, CAR-Kazakhstan, CAR-Kyrgyzstan, Indonesia, Vietnam, Dominican Republic	

Each country project is designed to meet the needs of the national program and its stakeholders. Therefore, each project works in some or all of the eight technical areas of the program. Table 25 below lists the technical focus areas covered by each country program. HSS is the most common technical area listed in country work plans (17), followed by Universal and Early Access to Care (17) and M&E, OR and Surveillance (17). Drug Supply and Management is the least represented technical area (8) in country programs.

Table 25: TB CARE I Technical Areas by Country Workplan, Year 1

Countries	Technical Areas							
	Universal and Early Access (1)	Laboratories (2)	Infection Control (3)	PMDT (4)	TB/HIV (5)	HSS (6)	M&E, OR and Surveillance (7)	Drug Supply and Management (8)
Afghanistan	X	X	X	N/A	N/A	X	X	
Botswana	X	X	X	X	X	N/A	X	N/A
Cambodia	X	X	X	X	X	X	X	X
CAR - Kazakhstan	X	X	X	X	X	X	X	X
CAR - Kyrgyzstan	X	X	X	X	X	X	X	X
CAR - Uzbekistan	X	X	X	X	X	X	X	X
Djibouti	N/A	X	X	X	N/A	X	N/A	N/A
Dominican Republic	X	N/A	X	X	N/A	X	X	N/A
Ethiopia	X	X	X	X	X	X	X	N/A
Ghana	X	X	N/A	N/A	X	X	X	X
Indonesia	X	X	X	X	X	X	X	N/A
Kenya	X	X	X	X	X	X	N/A	X
Mozambique	X	X	X	X	X	X	X	N/A
Namibia	X	N/A	X	X	X	X	X	N/A
Nigeria - OP	X	X	N/A	X	N/A	X	X	N/A
Nigeria - COP	N/A	N/A	X	X	X	X	X	N/A
Pakistan	N/A	N/A	N/A	N/A	N/A	N/A	X	N/A
South Sudan	X	X	N/A	N/A	X	X	N/A	N/A
Vietnam	X	X	X	X	X	X	X	X
Zambia	X	X	X	X	X	X	X	X
Zimbabwe	X	N/A	N/A	X	X	X	X	N/A
Total # Countries	17	16	16	16	16	18	17	8

Below is a summary of the key achievements and results for each TB CARE I country. For further information on the country results, Annex 2 a full list of indicators measured at the end of Year 1 or the individual country annual reports, which are available upon request.

6.1 Afghanistan

Technical Areas	Total population	24.5 M
Universal Access Laboratories Infection Control HSS M&E and OR	TB CARE geographic coverage	48% of pop.
	Lead Partner	MSH
	Collaborating partners	KNCV, WHO
	TB CARE I start date	July 2011
	Cases notified (all forms), 2010	28,238
	New confirmed TB cases notified, 2010	26,270
	Treatment Success Rate, 2009	87%
	MDR cases diagnosed, 2010	31
	MDR cases put on treatment, 2010	15

Universal Access

TB suspect management in TB CARE I intervention areas had an upward trend over the past two quarters. 57,000 TB suspects were identified in these provinces and of them, 3,904 were sputum smear positive (positivity rate = 6.9%). 49% of all TB suspects identified in the country are attributable to 13/34 provinces and 52% of all new sputum smear positive TB cases identified over the past two quarters of 2011 are related to TB CARE I intervention areas.

In Kabul, 46 health facility staff received refresher training and 36 HCWs from newly covered health facilities received first-time training on SOPs for TB case detection, diagnosis and treatment. This maintains the 53 health facilities implementing quality DOTS in Kabul City.

To supplement the Urban DOTS approach, community events were conducted in Kabul city to increase awareness of TB and reduce stigma. During this period, four events for municipality workers, two school events and one event for Ibn-Sina higher educational students were conducted. In total, 1,280 individuals attended these events and were oriented on the basic TB messages regarding TB suspect identification, the availability of free TB services, and the fact that TB is a curable disease. Events at community level were also conducted by community health workers under CB-DOTS in TB CARE I intervention provinces.

Laboratories

Ten NTP staff were trained on the utilization of LED microscopes, increasing the number of reference laboratories at national and regional level using LED microscopes from one to ten.

IC

TB CARE I Afghanistan extended its support to the NTP on TB-IC. TB-IC measures were extended to an additional 15 public health facilities in Year 1, four in Kabul city and 11 in the provinces. In these facilities, TB-IC committees were established, TB-IC focal points were identified and health facility staff assisted in developing a TB-IC plan and integrating it into the facilities general Infection Prevention (IP) plan. (Photo: Urban DOTS supervision and on-the-job training for Infectious Diseases Hospital Kabul.)

HSS

TB CARE I Afghanistan met its target of helping the NTP to successfully implement 75% of the planned quarterly supervisory visits. Joint visits with the NTP, TB CARE I, PTC and NGOs were conducted to strengthen the coordination and feedback.

M&E, OR and Surveillance

TB CARE I assisted the NTP in conducting provincial quarterly review workshops in seven targeted provinces. During these workshops 350 individuals were trained in basic data analysis, interpretation and feedback. Each health facility identified their gaps and prepared action plans to address these gaps in the new quarter. The findings from the workshop were also shared with NGOs and provincial health offices for further action and follow up.

6.2 Botswana

Technical Areas	Total population	18 M
Universal Access Laboratories Infection Control PMDT TB/HIV M&E and OR	TB CARE geographic coverage	National
	Lead Partner	KNCV
	Collaborating partners	-
	TB CARE I start date	February 2011
	Cases notified (all forms), 2010	7,632
	New confirmed TB cases notified, 2010	6,560
	Treatment Success Rate, 2009	79%
	MDR cases diagnosed, 2010	106
	MDR cases put on treatment, 2010	92

Universal and Early Access, Infection Control, PMDT and TB/HIV

TB CARE I Botswana facilitated the development of action plans for TB-IC, PMDT, CB-DOTS and TB/HIV with involvement of approximately 40 stakeholders during the process. This was followed by the development of a draft National TB Strategic plan for 2012-2016.

Laboratories

By the end of Year 1, 78 laboratory technicians had been trained in AFB smear microscopy, exceeding the target of 75 trained. The National Tuberculosis Reference Laboratory (NTRL) passed document review by SANAS the regional accreditation body and awaits a site assessment scheduled for the month of October. A functional and stable EQA program has been maintained according to the workplan. The in-country Senior Technical Advisor to the NTRL facilitated the development of SOPs for First and SLD Susceptibility testing on MGIT. An M&E tool for laboratory routine diagnostics was also developed and 12 laboratory technicians were trained in its use. The laboratory has also been shortlisted as a SADC Regional SRL. The SADC assessment team noted that the quality system was a strong component in the NTRL, which has been supported by TB CARE I staff.

M&E, OR and Surveillance

A TB CARE I consultant facilitated the development of a costed TB prevalence survey protocol (co-financed by the Global Fund) in collaboration with in-country stakeholders. The National Strategic Plan was also costed with assistance from a budget expert

subcontracted by TB CARE I. Costing of both the Botswana strategic plan and the prevalence survey protocol will strengthen the country's proposal for the Global Fund Round 11.

6.3 Cambodia

Technical Areas	Total population	14 M
Universal Access Laboratories Infection Control PMDT TB/HIV HSS M&E and OR Drug Management	TB CARE geographic coverage	National
	Lead Partner	JATA
	Collaborating partners	FHI 360, KNCV, MSH, WHO
	TB CARE I start date	January 2011
	Cases notified (all forms), 2010	41,628
	New confirmed TB cases notified, 2010	40,460
	Treatment Success Rate, 2009	95%
	MDR cases diagnosed, 2010	31
	MDR cases put on treatment, 2010	41

The overall guiding principles for implementing TB CARE I in Cambodia are:

- To align with the National Strategic Plan for TB Control 2011-2015 and the USAID TB strategy
- Focus on technical assistance (TA) at the national level, and through collaboration with other USAID funded TB partners wherever possible
- Introduce innovations and implement pilots and demonstration projects introducing the new diagnostic technologies and concepts
- Scale up initiatives piloted/introduced through the previous TB CAP project

Universal and Early Access

The expansion of childhood TB pilot sites to five additional operational districts (ODs) was completed, covering a total of nine ODs. From July-Aug 2011, 2,784 childhood TB suspects were referred to the referral hospitals for complete diagnostic workup including clinical examination, tuberculin skin test, and x-ray based on the NTP guidelines. 23 % (636/2,784) of those referred, were diagnosed as TB cases and registered for treatment.

TB/HIV services in prisons expanded to three new sites, making a total of seven prisons which are now offering TB/HIV services with support from TB CARE I.

A web based SMS alert system for delivery of laboratory test results to health centers (HC) and DOT watchers (DW)/community volunteers has been developed with technical assistance from Innovative Support to Emergencies Diseases and Disasters (INSTEDD). Use of this technology is likely to decrease the time for relay of laboratory results to health centers and aid in earlier initiation of treatment for diagnosed TB patients.

In collaboration with Cambodia Anti-TB Association (CATA), TB CARE I carried out a formative (qualitative) assessment of CATA's TB control program in 17 garment factories around Phnom Penh. The objective of assessment was to identify the strengths and weaknesses of the current implementation. The assessment showed acceptance of the project by both the factories and the health centers, but also indicated the need to address barriers to prevention, diagnosis and treatment of TB in the workplace.

TB CARE I contributed to the revision of Integrated Management of Childhood Illnesses (IMCI) guidelines. For the first time, the IMCI guidelines for Cambodia will include TB and HIV in the protocol.

Laboratories

TB CARE I provided technical assistance for the first draft of the national TB laboratory strategic plan including the introduction of new diagnostic tools in the context of a national laboratory plan. Two GeneXpert machines and cartridges were procured and HCWs were trained in their use. A draft algorithm for GeneXpert and a proposed revision of recording and reporting forms to include information on GeneXpert has been shared with partners. Since several partners are planning to introduce the machine, the algorithm will be finalized by the laboratory technical working group to facilitate standardization across partners.

Central team supervisors from CENAT cross checked x-ray film reading made by referral hospital TB physicians. The agreement rate between CENAT expert readers and referral hospital doctors increased significantly from the 80% baseline to 85% in April-June 2011 and to 89% in July-September 2011, a significant improvement.

Following the expansion into one additional province this year, 46 ODs in nine provinces are now implementing diagnostic capacity improvement activities. The percentage of laboratories with over 95% correct smear microscopy results in TB CARE I supported sites (83 laboratories in nine provinces) was 78% in April-June 2011 and 77.5% in July-Sept 2011, a slight improvement from the baseline of 76%.

IC

Training materials for TB-IC have been developed for use together with three of the 12 existing training modules on general IC. 82 participants attended the series of training events for 37 health centers organized in Kg Cham in August and September 2011. The topics covered during the trainings were hand hygiene, waste management, TB-IC and Personal Protective Equipment (PPE).

A communications strategy for TB-IC has been developed and a branded logo ("Saksit", which means effectiveness/blessing in Khmer) was designed for the initiative.

PMDT

TB CARE I assisted in the development of the PMDT guidelines and a PMDT expansion plan for the NTP. Joint supervisory visits were conducted to around 60% of the MDR-TB treatment sites and feedback was provided to all partners during the MDR-TB technical working group meetings.

TB/HIV

The uptake of HIV testing among TB patients continued to increase and reached 81% during the first two quarters covered by the NTP report (Jan-June 2011), exceeding the target of >80% for 2011. This is a significant increase from 13% in 2006 (when the initiative began) and 70% in 2009.

HSS

TB CARE I successfully supported the country to mobilize more than \$1 million USD for 2011-2012 from TB REACH/WHO for active case finding among high risk groups. In early 2011, the MOH issued a ban on import and sale of anti-TB drugs of dubious quality from the for-profit sector. TB CARE I partners had been advocating for such a ban for several years. TB CARE I advocated for and assisted CENAT in establishing the childhood TB technical working group (TWG) which met for the first time in May 2011.

M&E, OR and Surveillance

TB CARE I provided an orientation on the e-TB manager system to the NTP and partners and conducted an assessment of the feasibility of implementing e-TB manager in Cambodia. It was recommended to pilot the e-TB manager tool in three MDR-TB treatment sites with reliable unlimited internet access for PMDT.

In June 2011, TB CARE I organized and facilitated a consultative workshop to develop an Operations Research (OR) agenda on TB for the next 5 years, this workshop was attended by CENAT and representatives from 16 organizations.

6.4 CAR – Kazakhstan

Technical Areas	Total population	15.5 M
Universal Access Laboratories Infection Control PMDT TB/HIV HSS M&E and OR Drug Management	TB CARE geographic coverage	National
	Lead Partner	KNCV
	Collaborating partners	-
	TB CARE I start date	June 2011
	Cases notified (all forms), 2010	19,703
	New confirmed TB cases notified, 2010	15,641
	Treatment Success Rate, 2009	62%
	MDR cases diagnosed, 2010	7387
	MDR cases put on treatment, 2010	4811

Universal and Early Access

Four Prison TB service specialists from four project sites participated in a two-day workshop to revise protocols for the management of DR-TB. Draft PMDT plans have been developed for three new project sites where the prison system is being included. Technical assistance was provided to the prison system on the reorganization of MDR-TB care in prisons.

Five TB pediatricians were trained in childhood TB at the WHO Collaborative Center in Latvia. They were involved in drafting clinical protocols on Childhood TB. TB in children has been included in drafts of PMDT action plans of the four project sites (East Kazakhstan, Akmola, North Kazakhstan and South Kazakhstan).

Laboratories

Draft guidelines, a laboratory plan and SOPs on laboratory maintenance have been developed. The draft national laboratory plan was developed by the NTP-established laboratory working group.

IC

Three engineers from ventilation companies in Almaty, East Kazakhstan and Astana attended a special TB-IC Building Design course for engineers in Vladimir.

PMDT

PMDT action plans for project sites were drafted during supervisory visits and draft versions were discussed during a one-day workshop. A thematic working group was established on the development of clinical protocols and revision of MDR-TB guidelines.

TB/HIV

A technical working group to develop the National TB/HIV plan and revise the clinical protocols on TB/HIV management was established with specialists from the NTP, NAP, SES and partner organizations participating. A draft National TB/HIV plan is available.

HSS

A tool for monitoring patient support activities has been developed and tested in East Kazakhstan oblast. 180 TB/MDR-TB patients who are still on treatment have been enrolled into the patient support system in Eastern Kazakhstan.

A two-day workshop on the involvement of local NGOs in TB control was conducted for 15 NGOs from four project sites. Two ex-MDR-TB patients who participated in the workshop have expressed their intention to establish NGOs to provide support to TB patients.

M&E, OR and Surveillance

108 specialists responsible for data collection, recording and reporting from prison and civil TB services from the four project sites were trained in data management and analysis during one-day workshops and through on-the-job training conducted during monitoring visits.

Drug Management

The results of the drug management activities will be reported at the end of the no-cost extension period.

6.5 CAR – Kyrgyzstan

Technical Areas	Total population	5.2 M
Universal Access Laboratories Infection Control PMDT TB/HIV HSS M&E and OR Drug Management	TB CARE geographic coverage	National
	Lead Partner	KNCV
	Collaborating partners	-
	TB CARE I start date	June 2011
	Cases notified (all forms), 2010	9,468
	New confirmed TB cases notified, 2010	5,308
	Treatment Success Rate, 2009	83%
	MDR cases diagnosed, 2010	1471
	MDR cases put on treatment, 2010	1471

Universal and Early Access

A joint assessment mission on different aspects of TB control in civic and prison TB services (TB in prisons, PMDT, TB in children, TB in migrants, TB-HIV, TB-IC, patient support system and HR) was conducted by a team of local and international specialists. Agreement and support were obtained from the MOH, the Ministry of Labor and Social Affairs, and the Ministry for Labor, Employment & Migration State Registration Service to establish a working group on TB in migrants. One TB pediatrician from the NTP was trained in childhood TB at the WHO Collaborative Center in Latvia.

Laboratories

An assessment of laboratory services was conducted, which will inform the development of the national laboratory strategic plan.

IC and PMDT

The results of the IC and PMDT activities will be reported on at the end of the no-cost extension period.

TB/HIV

A technical working group made up of specialists from the NTP, NAP, SES and partner organizations was established to develop the National TB-HIV plan. The framework/design of the national plan was agreed upon.

HSS

One specialist from NTP responsible for the planning of anti-TB activities was trained in strategic planning in a training session organized by IUATLD. An HRD consultant collected information about training activities during an assessment mission and conducted an analysis of the HRD situation. Recommendations for the HRD plan were developed.

M&E, OR and Surveillance

An assessment of the surveillance system was conducted. This assessment will inform TB CARE I Year 2 activities and provide guidance to the NTP on how to improve the current surveillance system.

6.6 CAR – Uzbekistan

Technical Areas	Total population	27.6 M
Universal Access Laboratories Infection Control PMDT TB/HIV HSS M&E and OR Drug Management	TB CARE geographic coverage	National
	Lead Partner	KNCV
	Collaborating partners	-
	TB CARE I start date	June 2011
	Cases notified (all forms), 2010	16,883
	New confirmed TB cases notified, 2010	15,734
	Treatment Success Rate, 2009	82%
	MDR cases diagnosed, 2010	1023
	MDR cases put on treatment, 2010	-

Universal and Early Access

To strengthen the local capacity to implement international recommendations on childhood TB, one TB pediatrician from the NTP participated in the international training course on childhood TB in Latvia.

IC

A TB-IC assessment was conducted in TB facilities in Tashkent City, Nurabad, Andijan and Nukus. The main recommendations where: 1) Finalize and update the legislative basis for TB-IC according to international recommendations, 2) Develop a budgeted TB-IC Activity Plan, 3) Conduct TB-IC training courses for all HCWs and technical staff of TB facilities, 4) Ensure timely diagnosis of TB patients by implementing rapid diagnostic tests (GeneXpert), 5) Separate patients according to their DR status in all TB facilities and all DR patients should be located in one ward, 6) Minimize duration of in-patient care especially after smear conversion and develop the policy on ambulatory care, 7) Organize surveillance and monitoring of TB incidence among HCWs and technical personnel 8) Proper use of UVGI lamps, extractor fans in combination with natural ventilation (cross ventilation, opening windows, doors etc), 9) Supply all TB facilities with surgical masks for patients and with FFP2/N95 respirators for medical staff.

HSS

Representatives of the NTP and prison medical service participated in the regional meeting on the harmonization of action plans for TB control. The plans of the NTP and prison medical service were shared and discussed during the meeting.

All other technical areas

Laboratory, PMDT, TB/HIV, M&E and Drug Management activities will begin in Year 2.

6.7 Djibouti

Technical Areas	Total population	800,000
Laboratories Infection Control PMDT HSS	TB CARE geographic coverage	National
	Lead Partner	WHO
	Collaborating partners	-
	TB CARE I start date	February 2011
	Cases notified (all forms), 2010	4,191
	New confirmed TB cases notified, 2010	1,181
	Treatment Success Rate, 2009	79%
	MDR cases diagnosed, 2010	8
	MDR cases put on treatment, 2010	8

Laboratories

To assist with the establishment of a quality NRL, TB CARE I purchased reagents and antibiogram kits. With the reagents due to be available in October 2011 and the renovation process of the NRL being at its final stage, it is expected that culture and DST will commence in December 2011.

IC

N95 respirators for personal protection have been procured and delivered to the NTP for distribution and use. This will help to decrease the risk of TB transmission from patients to HCWs.

Programmatic Management of Drug Resistant TB

Guidelines for the treatment of retreatment and MDR cases have been developed based on the specific context of Djibouti. A diagnostic algorithm for TB and MDR-TB has been developed after in depth discussions involving the NTP and national stakeholders, TB CARE I, WHO-Geneva and FIND.

HSS

The update of the NTP manual is in its final stage before editing and approval by national stakeholders. The development of the manual was made after a review of existing treatment and diagnostic guidelines, taking into consideration the current introduction of innovative and new rapid diagnostics tests (i.e. Line Probe Assay and Liquid Culture, GeneXpert) and the development of a draft diagnosis and treatment algorithm.

6.8 Dominican Republic

Technical Areas	Total population	9.9 M
Universal Access Infection Control PMDT HSS M&E and OR	TB CARE geographic coverage	74% of pop.
	Lead Partner	KNCV
	Collaborating partners	-
	TB CARE I start date	May 2011
	Cases notified (all forms), 2010	4,160
	New confirmed TB cases notified, 2010	3,640
	Treatment Success Rate, 2009	85%
	MDR cases diagnosed, 2010	108
	MDR cases put on treatment, 2010	101

Universal and Early Access

In coordination with the NTP visits were made to new pharmacies expanding the PPM pharmacy model. To date, 105 TB suspects have been referred to DOTS facilities.

Through the participatory strategy "Photovoices", 10 Dominicans affected by TB took pictures to represent their experience with tuberculosis. A final exhibition in a public venue is used to bring awareness to communities and advocate decision makers for additional resources for TB.

IC

Three health facilities have elaborated IC plans (including a budget) that are in accordance with international standards. Activities continue through March 2012 to reach the targeted number of 10 health facilities that meet these standards.

PMDT

The purchase of three GeneXpert machines has been agreed upon as well as the kit of reagents.

HSS

Two new Stop Alliances at municipal level in Monte Plata Province and a neighborhood committee in Santo Domingo were formed. All Stop TB alliances are implementing activities according to their plan, which they elaborated with community members, services and the TB CARE I team.

M&E, OR and Surveillance

To strengthen data quality, eight out of 20 provinces were visited to collect data and conduct on-the-spot training on data collection and interpretation. By March 2012, all provinces will have received on-the-job training.

6.9 Ethiopia

Technical Areas	Total population	81.7 M
Universal Access Laboratories Infection Control PMDT TB/HIV HSS M&E and OR Drug Management	TB CARE geographic coverage	National
	Lead Partner	KNCV
	Collaborating partners	MSH, WHO
	TB CARE I start date	March 2011
	Cases notified (all forms), 2010	156,927
	New confirmed TB cases notified, 2010	149,508
	Treatment Success Rate, 2009	84%
	MDR cases diagnosed, 2010	140
	MDR cases put on treatment, 2010	85

Universal and Early access

TB CARE I supported the community TB care program by improving the knowledge and skills of the health extension workers (HEWs) and their supervisors through capacity building activities. Topics included TB suspect identification and referral, supporting treatment and the follow-up of patients on anti-TB drugs and tracing contacts of TB patients. During the reporting year, training on community-based TB care was conducted for 127 female HEWs and their supervisors, exceeding the target of 120 HEWs trained. As planned, two rounds of joint supportive supervision and five review meetings were conducted in seven zones of the three major regions of the country. The community-based TB care program was implemented smoothly in most supervised Woredas (administrative divisions) and Regional Health Bureaus have accepted the need to allocate or mobilize resources required to sustain the community-based TB care activities.

Laboratories

Laboratory strengthening is one of the key areas in which TB CARE I works closely with the Ethiopian Health and Nutrition Research Institute (EHNRI) & Regional Laboratories in order to improve the case detection rate of the country. In Year 1, training was given to 53 Laboratory technicians on EQA & AFB Microscopy. TB CARE I supported EHNRI in the installation and piloting of GeneXpert at Adama Regional Laboratory and Assela Hospital. To improve the diagnostic capacity of five regional laboratories, it was planned to conduct TOT on TB Culture and DST but EHNRI decided to conduct the training when the regional laboratories are fully functional, which is likely to be in Year 2.

IC

A second national TOT and basic TB-IC training have been conducted and HCWs from all regions of the county participated, attaining the 100% coverage of regional health bureaus that received support on TB-IC. After having feedback from end users, the existing TB-IC materials were redesigned and 10,000 TB-IC posters were printed. TB CARE I worked closely with the MOH and other partners and a consensus was reached to incorporate TB-IC issues in the designs of all newly constructed health facilities across the nation. (Photo: TB-IC poster developed by TB CARE I-Ethiopia.)

PMDT

This year a total of 100 MDR-TB patients were put on treatment, bringing the total number of MDR-TB patient who started treatment to 303.

As part of strengthening the electronic database system of the MDR-TB service, TB CARE I procured five computers with accessories and delivered them to Gondar Hospital MDR-TB ward and to two MDR-TB follow up health facilities in Addis Ababa region. Simultaneous orientation on electronic data entry and data capturing systems has been given to the MDR-TB ward staff by the data manager of St. Peter Hospital who is seconded by TB CARE I.

Several capacity building activities were conducted to prepare ALERT hospital to start MDR treatment. TB CARE I experts participated in the development protocol to pilot an ambulatory care model of MDR-TB service in two regions (Addis Ababa & Dire Dawa) and are fully involved in the readiness assessment of the pilot regions. Job aid/provider tools on MDR-TB side effects and MDR management strategies to be distributed to health facilities were developed and printed by TB CARE I.

TB/HIV

TB CARE I experts participated in the development of a comprehensive TB & TB/HIV participant's module and trainer guide while also assisting with the field testing of the modules. The project supported an assessment to evaluate the EH-RH regimen shift implementation status in three urban regions of the country; two rounds of TOTs on the EH-RH regimen shift were also conducted, bringing the total number of regions implementing the new regimen to 11 (exceeding the target of seven regions by the end of Year 1).

As of April 2011, SOPs to improve TB case detection have been piloted at 28 Health Facilities in West Arsi Zone of Oromia

Region. Preliminary findings show an improvement in TB case detection. As part of the follow up for the TB case detection SOPs, supportive supervision was conducted twice for 28 health facilities, and an SOP training and review meeting were also conducted. These SOPs are expected to bring tangible and quantifiable improvement in TB case detection at the pilot sites and nationally in the near future.

HSS

TB CARE I fully supports the TB ACSM activities of the NTP. In Year 1, the project produced and broadcasted TB radio messages nationally for 30 minutes per week. TB CARE I supported the media forum by building the capacity of journalists through training to effectively and accurately report on TB, TB/HIV and MDR-TB. After the training the number as well as the quality of the articles improved; during Year 1, a total of eleven TB stories were published in two English newspapers and nine national language newspapers. The TB media forum organized by TB CARE I sensitized cinema, DSTV and theatre houses on TB transmission prevention methods. This activity will continue in Year 2 addressing other sectors like transport and schools.

M&E, OR and Surveillance

The first national TB prevalence survey has been conducted in Ethiopia; TB CARE I supported the survey by covering the salary of the survey staff and by procuring supplies and technically assisting the survey team throughout the data collection process. The project will continue supporting the survey team until the final report is complete.

TB CARE I supported the sixth national TB conference both financially and technically by chairing sessions and moderating panel discussions. With support and consultation from TB CARE I, AHRI research unit has started OR to estimate TB patient costs. The study is being done in 11 public health facilities in the Addis Ababa region and the result will be shared in Year 2.

To address the inconsistent availability of TB recording and reporting forms, TB CARE I supported the NTP by printing recording and reporting forms.

Drug Supply and Management

National sensitization and a consultative workshop on the integration of TB, malaria and family planning pharmaceuticals into the new Pharmaceuticals Logistics System was organized to create common understanding among all stakeholders.

Commodity Logistics training has been given to 65 participants and 142,000 stock record cards have been procured and distributed to implementing health facilities. As part of a follow-on activity to the national forecasting and quantification workshop, a stock status analysis and supply planning exercise was done.

6.10 Ghana

Technical Areas	Total population	24,223,431
Universal Access Laboratories TB/HIV HSS M&E and OR	TB CARE geographic coverage	National
	Lead Partner	MSH
	Collaborating partners	KNCV, WHO
	TB CARE I start date	March 2011
	Cases notified (all forms), 2010	15,145
	New confirmed TB cases notified, 2010	14,124
	Treatment Success Rate, 2009	87%
	MDR cases diagnosed, 2010	4
	MDR cases put on treatment, 2010	2

Universal and Early Access

In an effort to address the NTP's key challenge of the low TB case detection, TB CARE I supported the NTP in the provision of a TOT Workshop for HCWs who will serve as trainers in their respective regions and districts for the implementation of the SOPs for TB case detection. The key deliverable for the TOT was the development of action plans for the implementation of the SOPs for TB case detection in all the regions. During this meeting it became clear that although Ghana achieved 100% DOTS coverage in 2005, based on anecdotal information provided by Regional TB Coordinators public health facility DOTS coverage was about 50%. As a result of this all regions were tasked to conduct a TB situational analysis to assess the true DOTS coverage for Ghana. So far seven out of the 10 regions have submitted their reports and health facilities DOTS coverage in these seven region ranges from 8% to 70%. This information will offer an opportunity for the NTP and TB CARE I to systematically organize targeted TB case detection intervention in big hospitals and urban areas and in Districts that have high HIV rates. The objective is to increase the number of TB cases by 10% in 2012 relative to the 2010 figure.

TB CARE I provided technical assistance to the NTP through a senior consultant from the WHO Regional Office for Africa (Dr. Daniel Kibuga). The consultant supported the NTP in developing a practical road map for scaling up PPM DOTS in Ghana. This

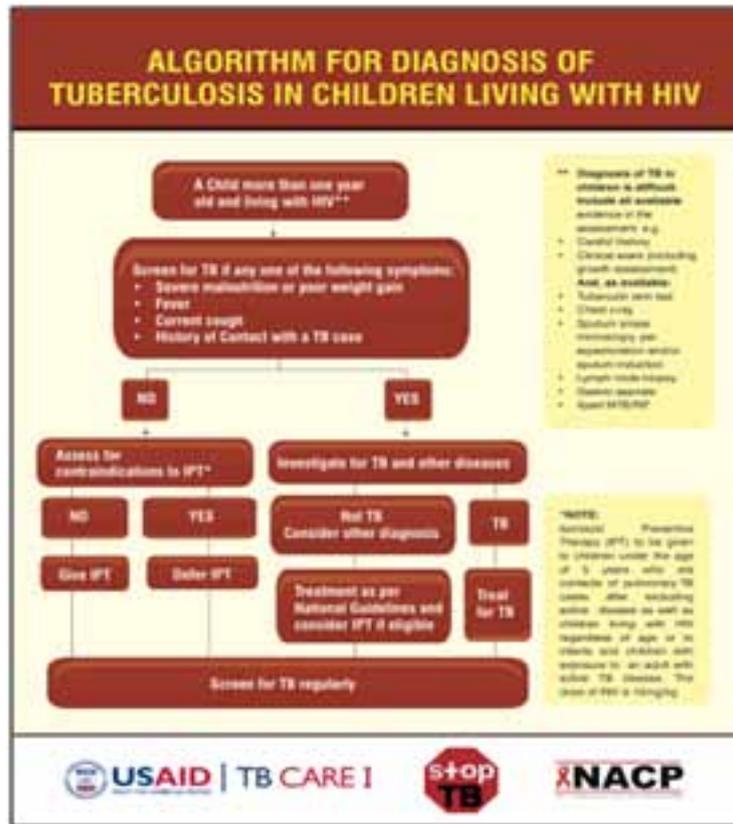
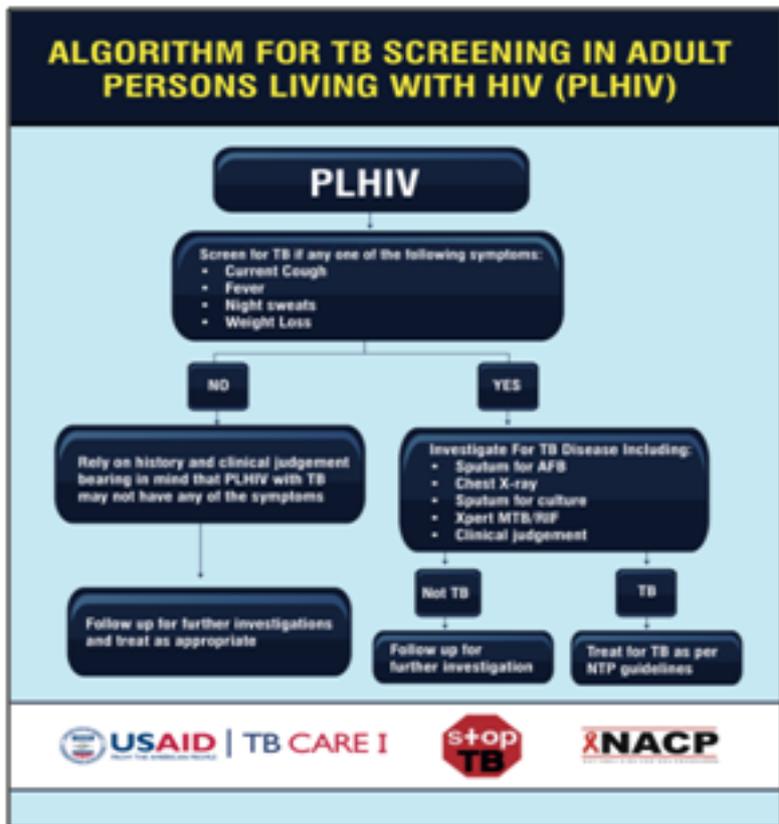
road map will be implemented within the context of the Global Found Round 10 Grant.

Laboratories

TB CARE I supported the training of 23 personnel in a five-day workshop on sputum smear preparation and examination. This was designed to improve the quality of sputum smears in order to enhance TB case detection as well as to reduce both false negatives and positives.

TB/HIV

TB CARE I supported the National AIDS Control Program (NACP) and the NTP to revise the Algorithm for TB screening in PLHIV (adults and children) in line with the global guidelines. TB CARE I then supported the printing of 50,000 copies of the TB screening algorithms for adults and children to be distributed in all 155 ART clinics as well as HIV Testing and Counseling (HTC) and PMTCT clinics. In Year 2, the project will document the impact of the TB screening algorithm in improving TB case detection among PLHIV in Eastern Region. (Figures: Algorithms for TB Screening in adults and children living with HIV (PLHIV).)



HSS

TB CARE I supported the Ghana Health Service in the finalization of the health sector M&E plan. By helping to improve the quality of data collection and data analysis across all health areas, the quality of TB data will also hopefully improve as TB Control is integrated into general health services.

During the follow-up MOST for TB workshop for the NTP central unit, it became apparent that some regions are not fully aware of the new strategies and policies which the NTP has adopted and the meeting decided that TB CARE I should support the NTP in developing a TB manual to serve as a reference document and which would permit for the standardization of TB control services across the country. The TB Manual will also include SOPs for completing recording and reporting forms and tools to improve the quality of TB data.

Geographical and population coverage with DOTS was one of the management components that was identified as a priority to be implemented during the next 12 months in the Eastern Region. As a result of this, TB CARE I supported the Eastern Region to conduct a situation analysis of TB services. Preliminary results showed that out of the 451 public health facilities in Eastern Region 376 offer some form of DOTS services, which means a DOTS coverage of 83%.

The TB CARE I Country Director now chairs the CCM HIV-TB Oversight Committee. Through its participation in this committee, TB CARE I will effectively provide technical assistance to the NTP in the implementation of the Global Fund Round 10 Grant, which is yet to be signed. High impact interventions will be prioritized.

M&E, OR and Surveillance

TB CARE I supported the NTP in the assessment of its M&E systems using the M&E System Strengthening Tool (MESST), and as a result of this, the draft NTP M&E plan was finalized. This M&E plan has taken on board the indicators and targets for the Global Fund Round 10 Grant.

TB CARE I supported the NTP to pilot the use of the Rapid Data Quality Assessment (RDQA) tool. The piloting of the RDQA tool showed that data completeness on recording and reporting forms is a challenge as there are transcription errors from the treatment cards to facility registers through to the national level data, resulting in misclassification of TB patients. A data quality assessment was also completed in the Eastern Region, resulting in the NTP wanting to implement a standardized system for conducting data validation. As a result of these findings, TB CARE I and the NTP, using both Global Fund Round 10 Grant and TB CARE I resources, will intensify technical supervision to the regions and districts and increase on-the-job practical trainings.

TB CARE I supported the NTP to conduct a mid-year review meeting focused on M&E for the purpose of assessing the progress of implementing the NTP work plan during the first 6 months of 2011 and review activities to be implemented in the remaining months of the year. The meeting also offered the opportunity for the NTP Central Unit to guide the regions that will get resources from the Global Fund Round 10 Grant through the key steps of implementation plan development.

TB CARE I supported the NTP to conduct monitoring and technical supervisory visits to the Eastern, Ashanti and Brong Ahafo regions. During these visits documentation and lack of completed TB treatment cards and TB Registers were noted to be key challenges similar to previous monitoring reports from the NTP. It was also noted that once a TB patient is diagnosed with TB and commenced on TB treatment, the patient is rarely reviewed by clinicians. The TB Manual to be developed in Year 2 will strongly recommend that TB patients be reviewed by a clinician at least three times during the course of TB treatment (i.e. at the end of intensive phase, at the end of month five (5) and at the end of TB treatment).

6.11 Indonesia

Technical Areas	Total population	234 M
Universal Access Laboratories Infection Control PMDT TB/HIV HSS M&E and OR Drug Management	TB CARE geographic coverage	68% of pop.
	Laboratories	KNCV
	Infection Control	ATS, FHI 360, MSH, The Union, WHO
	PMDT	March 2011
	TB/HIV	605,722
	HSS	296,727
	M&E and OR	91%
	Drug Management	182
	MDR cases put on treatment, 2010	142

Universal and Early Access

TB CARE I targeted 55 prisons to implement TB screening among all new inmates. During Year 1, TB CARE I supported 10 prisons to implement routine TB signs and symptoms and HIV risk factors screening. The number of prisons exceeds the target of five prisons in Year 1, and as many as 5,000 inmates were screened.

TB CARE I supports implementation of the Indonesian model of PPM through coordination among NTP, Medical Services of MOH, professional organizations, NGOs, insurance companies and Ministry of Law and Human Rights (MoLHR).

Laboratories

TB CARE I provided 17 GeneXpert machines and 1700 cartridges to Indonesia. GeneXpert implementation is performed in close collaboration with the NTP and Laboratory Directorate of MOH. An implementation strategy for GeneXpert has been adopted by the NTP. A Country GeneXpert Advisory Team (CGAT) has been established, sites have been selected and implementation is underway. Laboratory staffs from five selected sites in Jakarta and Bandung have been trained on GeneXpert.

Currently, Indonesia has five C/DST laboratories which have been certified for First and SLDs. Quality assurance of these existing laboratories will be continued and certification will be sought for three new C/DST laboratories.

TB CARE I supported the renovation of three TB laboratories in Microbiology Laboratory of Gadjah Mada University Yogyakarta, BLK Jayapura and BLK Semarang.

IC

The project supported TB-IC implementation in 26 health facilities, including renovations in three PMDT hospitals and eight health centers. The TB-IC working group is also being formed.

PMDT

As of September 30th, 2011, a total of 1,585 MDR suspects were identified, 471 confirmed MDR cases were diagnosed and 332 MDR patients were put on treatment. In the fourth quarter, 70% of confirmed MDR-TB patients were put on treatment compared to 59% in the previous quarter. Of the 30% not put on treatment, 15% are still in the pre enrollment process, 8% refused treatment after intensive counseling and 7% died before laboratory confirmation. From January to September 2011, follow-up smear and culture were done for 170 newly enrolled cases and 162 cases enrolled in previous years. 137 patients received support for side effect management between April and September 2011. Home visits were conducted for all newly diagnosed MDR-TB cases. Home visits and counseling were conducted for more than 220 cases to ensure uninterrupted treatment.

PMDT guidelines for treatment scale up were finalized. TB CARE I led the comprehensive course on Clinical Management of DR-TB in collaboration with the Faculty of Medicine University of Gadjah Mada for pulmonologists.

TB/HIV

Eight provincial TB/HIV technical working groups have been established and are functional. TB/HIV IEC materials have been developed, tested and finalized. PITC trainings were conducted for TB health staff in primary health care settings and hospitals to increase HIV testing among TB patients. TB CARE I also supported other TB/HIV-related trainings and actively participated in development of TB/HIV Program Management Guidelines.

HSS

A meeting to strengthen comprehensive and integrated services (COPC: Continuum of Prevention to Care) in Jayapura City was conducted in Year 1. The goal was to increase quality of TB/HIV services for PLHIV, to provide comprehensive services for PLHIV and to develop a referral system within and between health facilities. A need for refresher training for HCWs was identified and data validation of TB/HIV cases was targeted as a major priority.

TB CARE I also supported implementation of an HRD action plan for PMDT expansion in 2011.

M&E, OR and Surveillance

Site assessments were conducted in five provinces for the DRS Survey by a team consisting of the NTP and partners. The first draft of the National DRS plan has been finalized. The sampling sites and methodology were finalized in September 2011.

For TB prevalence surveys, TB CARE I has supported the NTP and the national survey team to develop a TB prevalence survey protocol and to negotiate with the Global Fund to include the surveys in the Round 10 proposal for TB. TB CARE I also supported the development of TB/HIV variables for health facilities, which the MOH launched in August 2011.

Nine OR teams participated in an OR workshop on several top priority issues such as PMDT, TB/HIV, TB in children and ACSM in Year 1. In total, 29 provincial OR teams have been trained.

Of the five DR-TB sites, staff from four sites were trained to use e-TB Manager to monitor SLDs distribution and use. One site in Makassar has yet to receive training because of delays in identifying a local data manager. Training is planned for November 2011.

Drug Supply and Management

TB CARE I held a workshop on TB/DR-TB surveillance, which resulted in a detailed strategy framework (including timeframe) for the further development of electronic TB/DR-TB surveillance and TB/DR-TB data management in Indonesia with solutions proposed and activities to be harmonized within current stakeholders and partners and on-going initiatives.

The SOP Book for SLDs has been developed and finalized by TB CARE I, the NTP and partners.

There was an increase in national budget for drug supply by as much as 70% compared to the previous year. This improved the drug supply status. This budget increase is a direct result of the high level mission from international partners conducted after the JEMM in February 2011.

At the end of September 2011, 91% of districts reported no stock-out of first-line anti-TB drugs (category 1, category 2 and pediatric) on the last day of each quarter in supported TB CARE I areas, compared to the baseline of 75%.

TB CARE I provided significant technical assistance to the NTP for the revision and finalization of the GF Round 10 PSM plan. Grant signing was completed in August 2011 and the drug management component of the Country Profile was drafted. Final submission of the Country Profile by the NTP is expected in October 2011.

6.12 Kenya

Technical Areas	Total population	40 M
Universal Access Laboratories Infection Control PMDT TB/HIV HSS M&E and OR	TB CARE geographic coverage	National
	Lead Partner	KNCV
	Collaborating partners	ATS, FHI 360, MSH
	Local: KAPTLD and KANCO	March 2011
	TB CARE I start date	October 2011
	Cases notified (all forms), 2010	106,083
	New confirmed TB cases notified, 2010	95,604
	Treatment Success Rate, 2009	86%
	MDR cases diagnosed, 2010	112
	MDR cases put on treatment, 2010	70

Universal and Early Access

To achieve universal access, the project aimed to enhance early access to quality diagnosis and treatment for at risk populations initially through guideline development. With support from TB CARE I, the draft policy document for Poverty and Gender was developed and the Childhood TB Guidelines and the handbook for Quality Assurance of Chest X-rays were finalized.

According to the half year data (January to June 2011), the private sector with support from TB CARE I through Kenya Association for the Prevention of TB and Lung Diseases (KAPTLD), contributed 8% of the national case notification (4,261 out of the 52,854 cases) compared to 3% baseline or the 5% target for Year 1. Data for the full year will be available in early 2012.

Additionally, community-based activities were implemented which aimed to involving TB advocates (ex-TB patients) in TB control activities through Kenya AIDS NGOs Consortium (KANCO). TB CARE I supported the development of patient engagement guidelines and a training curriculum for the TB advocates.

Laboratories

TB CARE I supported the NTP to strengthen EQA of sputum smear microcopy nationwide. EQA has gradually improved from less than 30% in 2008 and now stands at 80% (January to March 2011 data). The error rates have also improved from 13.9% to 5%.

IC

IC activities were postponed to Year 2 due to competing priorities and the short Year 1 implementation timeframe.

PMDT

MDR-TB surveillance in Kenya has been strengthened during the year. With support from TB CARE I, the NTP has been able to provide transportation and nutritional support to 161 MDR-TB patients on treatment. In addition, 104 contacts of MDR-TB patients were traced and screened for TB.

TB CARE I supported the NTP to acquire the first three GeneXpert machines in public health facilities. The machines were installed in three hospitals in the Coastal Region (based on WHO's recommendation for clustering). The laboratory staff from these facilities have been trained and the clinicians sensitized. Routine use of these machines will begin at the start of Year 2.

300 HCWs from the 12 operational TB provinces were trained on PMDT. It is expected that trained staff have improved skills on the management of MDR-TB.

TB/HIV

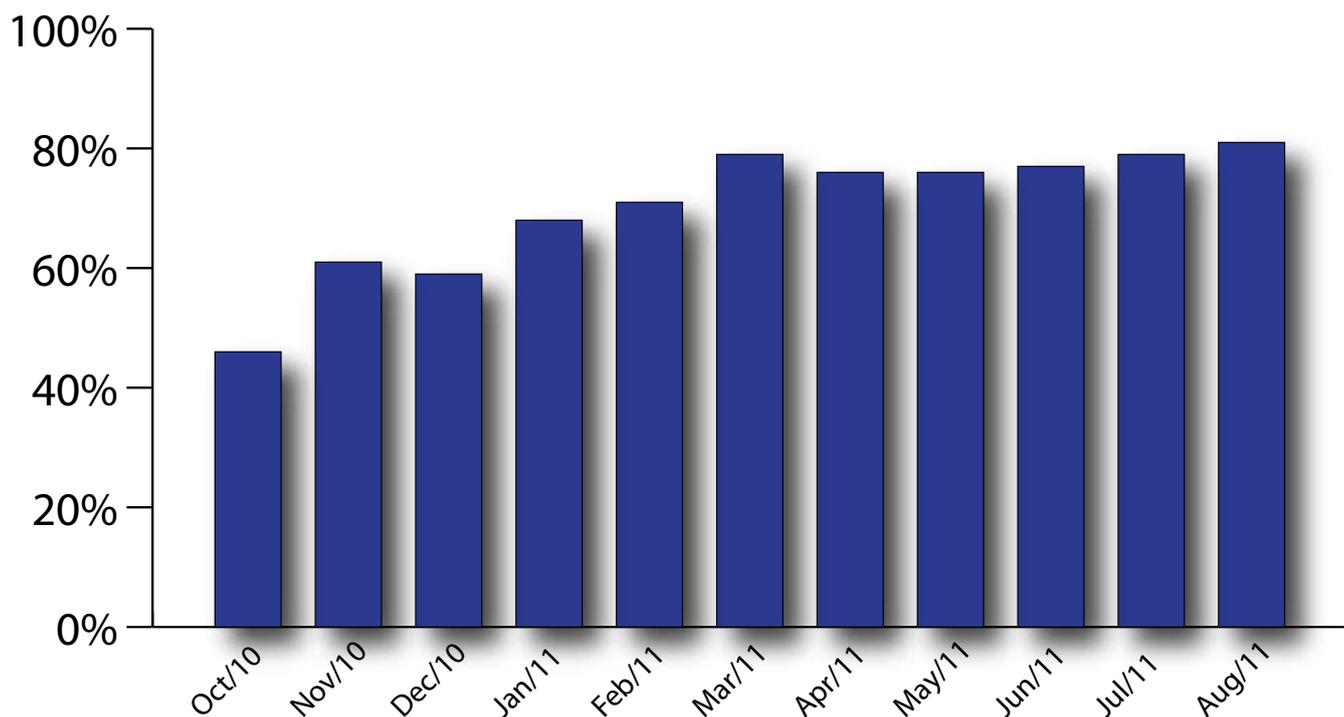
During the year, the NTP implemented TB/HIV collaborative activities with the aim of improving the care of TB/HIV co-infected patients. TB CARE I supported the NTP to develop an IPT data tool for improved IPT reporting. The tool has been finalized and will be rolled out in Year 2.

Additionally, the Gold Star Network (GSN) – a network of private providers delivering HIV care in Kenya - was supported with funding from TB CARE I to implement integrated TB/HIV care services. As a result of these efforts, 18 members of the GSN have started TB diagnostic and treatment services while nine providers are providing TB DOTS services within their facilities.

HSS

A notable achievement was the sustained supportive supervision implemented throughout the country. With support from TB CARE I, the NTP ensured that regular supervision was done at all levels of the TB Program (national, regional and district levels), maintaining 80% coverage for supervision visits to 210 districts.

Figure 3: Monthly district supervision coverage since October 2010 for 210 districts



TB CARE I also supported quarterly review meetings for all the 12 operational TB provinces and two bi-annual meetings for Provincial TB & Leprosy Coordinators (PTLCs). During these meetings, NTP activities are reviewed, experiences are shared and challenges are addressed. At the PTLCs bi-annual meeting, all 12 regions prepared their annual plans for next year.

TB CARE I has contributed to strengthening partnerships in Kenya by hosting partners meetings and financially supporting the Kenya International Lung Health Conference.

M&E, OR and Surveillance

Kenya received support from TB CAP and now from TB CARE I to develop the National TB surveillance system, in Year 1, technical assistance was provided to support this process.

6.13 Mozambique

Technical Areas	Total population	23 M
Universal Access Laboratories Infection Control PMDT TB/HIV HSS Drug Management	TB CARE geographic coverage	66% of pop.
	Lead Partner	FHI 360
	Collaborating partners	KNCV, MSH, WHO
	TB CARE I start date	April 2011
	Cases notified (all forms), 2010	46,174
	New confirmed TB cases notified, 2010	-
	Treatment Success Rate, 2009	85%
	MDR cases diagnosed, 2010	165
	MDR cases put on treatment, 2010	86
	MDR cases put on treatment, 2010	70

Universal and Early Access

Baseline assessments have been conducted in the 24 new districts across seven provinces to be included in Year 2. This includes an assessment of all TB control activities, the collection of baseline data and identification of potential local partners. This

assessment also represents an opportunity to discuss coordination mechanisms with the Provincial and District Health Directorate and with the CB-DOTS implementing agencies.

In July the project started to roll out the training of traditional healers in CB-DOTS by training 29 trainers. The training carried out in Gaza province involved 12 TB district supervisors, 12 traditional healer focal points, two traditional healers and three provincial staff (including the provincial traditional healer focal point).

In collaboration with other FHI 360 projects, which implement HIV-related activities, a community reference form was developed. This form is now being used by community health workers and health staff for referral of patients between the community and health services.

Laboratories

An assessment of the microscopy network was conducted in the seven provinces covered by TB CARE I. In general there are 190 laboratories in the seven focus provinces and 102 health centers with nurses trained in AFB microscopy. TB CARE I will provide technical support to ensure adequate TB smear microscopy diagnosis coverage.

A needs assessment was performed in the six laboratories to be renovated. The assessment revealed problems in terms of infrastructure, training and supervision. Most of these laboratories did not have a room dedicated to smear microscopy and in some cases the IC measures were not adequate. Although all staff had been trained to perform smear microscopy there was no plan for refresher trainings, and the supervision visits were not regular. All laboratories had enough reagents, but almost all of them were experiencing shortages of slides.

The project supported supervision visits to 17 laboratories of three provinces; Zambézia, Manica and Nampula. The findings of these visits have been discussed with each province and with provincial health directorates and a plan of recommendations was drafted. These recommendations highlight the need for continuing on-the-job training of laboratory technicians on SOPs, laboratory management, good laboratory practices, bio-safety and the basic maintenance of equipment.

TB CARE I also supported the procurement of some laboratory equipment (such as negative pressure, analytic balances, blender, pH meters, etc.) for the NRL and the Beira Regional Reference Laboratory, which have been delivered.

PMDT

An assessment of the PMDT situation was carried out in three regions and a national workshop was conducted to launch the process of developing a national PMDT strategic plan. A draft strategy is under development and a final document is expected by the end of December 2011.

TB/HIV

During the reporting period, two NTP/TB CARE I supervision visits to Zambézia and Nampula were planned and executed. A supervision guide was used and at the end of each visit a meeting was organized to discuss the problems which were identified and their possible solutions, and to share good practices. The teams also prepared a report which was shared with each province. The findings of these visits were also used to update training materials for TB supervisors and to identify areas to improve the collaboration between the TB and HIV programs. For instance, it became apparent that IPT coverage is still low and that more needs to be done to ensure the adequate implementation of the "One Stop Shop".

The implementation of TB/HIV collaborative activities is likely to improve in the coming months as new guidelines are finalized and implemented early in Year 2. 36,000 pamphlets with TB/HIV messages have been printed for all seven target provinces.

HSS

Most HSS activities are ongoing and will conclude in Year 2.

M&E, OR and Surveillance

During the supervision visits, 20 quarterly reports from 10 districts were reviewed for completeness, timeliness and analysis of information. 11 out of 20 quarterly M&E reports (55%) met the quality criteria, an improvement from the target of 25% quality reports.

Malaria

In Mozambique, the treatment of uncomplicated *Plasmodium falciparum* malaria is performed using both combinations of Artemether-Lumefantrine and Artesunate-Amodiaquine in fixed dose combination. Resistance of *Plasmodium falciparum* to the most commonly used anti-malarials represents a serious threat to efforts on malaria treatment and control efforts. Since the introduction of the Artemether-Lumefantrine combination in 2005, no studies have been carried out to test its therapeutic efficacy of the in the country. The current study is aimed at monitoring the therapeutic efficacy of Artemether-Lumefantrine and Artesunate-Amodiaquine combinations in five sentinel sites in Northern, Central and Southern Regions. The study protocol has been developed and approved, and implementation is in progress.

During this quarter, the TB CARE I trained 497 (47.6% of the total planned) laboratory staff. The cascade training was conducted in six provinces. The remaining laboratory staff will be trained by November 2011.

The project supported the printing and distribution of 8,000 copies of malaria guidelines and 8,000 copies of treatment algorithms and charts. All these materials have been delivered to National Malaria Control Program (NMCP).

6.14 Namibia

Technical Areas	Total population	2 M
Universal Access Infection Control PMDT TB/HIV HSS M&E and OR	TB CARE geographic coverage	National
	Lead Partner	KNCV
	Collaborating partners	-
	TB CARE I start date	March 2011
	Cases notified (all forms), 2010	12,625
	New confirmed TB cases notified, 2010	10,103
	Treatment Success Rate, 2009	85%
	MDR cases diagnosed, 2010	222
	MDR cases put on treatment, 2010	222
	MDR cases put on treatment, 2010	70

Universal and Early Access

TB CARE I continued to directly support community-based TB control activities (CBTBC) in Erongo and Karas Regions; CBTBC services were expanded into two new districts in Erongo and one new district in Karas Region in Year 1. The project continued to support the ambulatory DR-TB treatment program among members of the San community ("Bush Men") in Tsumkwe constituency. The support also included life skills training for DR-TB patients who are taking their medication on an ambulatory basis.

IC

Results of the IC activities will be available after the 3-month extension period for Year 1.

PMDT

With TB CARE I support, the NTP held another successful international DR-TB training session. Participants came from Namibia, Ethiopia, Zimbabwe, The Netherlands, Mozambique and Zambia.

TB/HIV

TB CARE I hosted a TB/HIV workshop, during which participants developed realistic plans on TB/HIV collaborative activities in their respective regions based on the knowledge and skills they gained at the training. Follow-up will take place in Year 2 to review progress made in planning and implementing the collaborative activities. (Photo: Two participants of the TB/HIV workshop show an illustration of their roles in TB control.)

TB CARE I staff provided technical inputs in development of the OGAC-funded TB/HIV proposal which was technically approved for funding worth 6 million USD; the country is awaiting guidance from OGAC and USG agencies (USAID and CDC) on the fund-disbursement processes.

HSS

The project provided support to the NTP and the relevant departments at the MOH and Social Services to prepare and submit the Single Stream of Funding (SSF) and Consolidated Performance Framework for the approved GF Round 10 and GF Round 2 Rolling Continuation Channel (RCC).

TB CARE I helped the NTP to prepare and finalize their national technical assistance and training plans based on the NTLP 5-year Strategic Plan.

M&E, OR and Surveillance

The project worked closely with the NTP to help develop, finalize and disseminate the NTP M&E plan. All planned 15 zonal TB quarterly review meetings (across all 13 regions of Namibia) were supported with TB CARE I funding. The SOPs for quarterly TB data review meetings were developed and have been shared with all regions to maximize data quality and utility of the meetings.

6.15 Nigeria

Technical Areas	Total population	161 M
Universal Access Laboratories Infection Control PMDT TB/HIV HSS M&E and OR	TB CARE geographic coverage	63% of pop.
	Lead Partner	KNCV
	Collaborating partners	FHI 360, MSH, WHO
	TB CARE I start date	March 2011
	Cases notified (all forms), 2010	90,447
	New confirmed TB cases notified, 2010	45,416
	Treatment Success Rate, 2009	83%
	MDR cases diagnosed, 2010	21
	MDR cases put on treatment, 2010	23
	MDR cases put on treatment, 2010	70

Nigeria is using two separate funding mechanisms, namely TB Funds and PEPFAR; therefore they are implementing two complimentary workplans.

TB Funds Workplan

Universal and Early Access

Monthly mentoring visits were organized to lower-performing states. During these visits attention was focused on general program management: development of organograms and job descriptions, filing systems, store management and data analysis. These activities are showing a coordinated upstream support to the NTP at all levels.

In order to improve TB case detection, the project continued to support community volunteers (CVs) under the four umbrella Community-based Organizations (CBOs) - Catholic Action committee on AIDS, (CACA), Forward In Action For Education, Poverty and Malnutrition (FACE-PAM), Federation of Moslem Women Association of Nigeria (FOMWAN) and National Union of Road Transport Workers (NURTW) in AMAC, Bauchi, Kachia and Udi LGAs respectively. Trainings have been organized for the CVs on project management, basic knowledge about TB disease and the crucial role of effective referral and referral linkages in a community approach to TB management and control. These training events will better position the CBOs to deliver quality project implementation of CBTBC. Further interventions to improve TB case detection include the piloting of Standard Operating Procedures (SOPs) for improving TB case findings in 10 facilities in Kano state. Advocacy visits were carried out on the management of the health facilities and baseline data on TB case notification have been obtained from the facilities. Outcomes are expected early next year.

Laboratories

Several laboratory training courses were held. Topics included bio-safety measures required to work in a BSL3 TB culture laboratory or BSL2 laboratory with BSL3 practices (especially at MDR-TB diagnostic sites); good clinical practice required to work in a TB laboratory; and care and handling of medical equipment and infrastructure services in line with Planned Preventive Maintenance (PPM) standard operating procedure (SOP).

PMDT

Progress was made with the implementation of GeneXpert in country. Nine machines (five with country funding and four under TB CAP core project funding) have been procured and delivered, and are awaiting installation based on the site assessment reports. The following actions are needed to advance implementation: 1) develop a basic computer module to monitor use, (2) finalize the National MDR-TB Guidelines, (3) finalize the training curriculum and (4) development of a logistics plan, and (5) complete site selection. Training will begin once these issues are addressed.

HSS

TB CARE I supported the Control Officers Retreat, which was organized at the request of the Control Officers who wanted to have a frank discussion about their program performance. During the discussions the Control Officers vowed to improve on general office management, supervision and reporting of data. The next meeting will be used to report back on progress made in these areas. (Photo: Participants of the Control Officers Retreat.)

TB CARE I participated in an expert meeting to review the National ACSM guidelines and develop ACSM toolkits and IEC materials. The key outcomes of the meeting included linking up effectively ACSM activities with the national program, involvement of the program managers in all ACSM activities by the partners, incorporating ACSM capacity building programs for relevant stakeholders across all levels and ensuring access of the harmonized and updated ACSM tools and materials, through the NTP.

Leadership and management training materials for TB LGA supervisors were adapted from the NTP training manual on leadership and management for TB and HIV/AIDS managers. Fifty LGA TB supervisors have been trained using these training materials and all 50 TB LGA supervisors developed action plans for their TB control activities for 2012.

M&E, OR and Surveillance

A visit was conducted to assess the feasibility of introducing e-TB manager for the management of MDR-TB. It was concluded that most of the resources required for the implementation of e-TB manager are available in Nigeria, and if the key challenges of power, funding and internet connectivity were addressed, e-TB manager implementation would be possible. The NTP agreed to implement e-TB manager as a pilot in the MDR-TB centers in the country.

A TB indicator reference booklet was developed with the involvement of several partners. The booklet harmonizes all reportable indicators for the NTP. The booklet is being printed and will be incorporated into all appropriate training documents.

PEPFAR Workplan

IC

IC training was carried out in seven supported NLR states. IC committees were established in some of the health facilities, but additional resources are needed to be able to put in place the necessary IC measures, structures, facilities or protective clothing required to enforce the IC requirements. There is also a need to scale-up this IC workshop to more facilities.

PMDT

A total of 54 persons (nurses, GOPD Medical Officers, ward mates and Local Government Supervisors) were trained on the clinical management of MDR-TB and the IC measures, exceeding the target of 33 participants.

Throughout Year 1, 25 MDR patients have been receiving medical and socioeconomic support. Although this is above the baseline of 23 patients, this number is limited by the number of beds for MDR-TB patients in University College Hospital (UCH).

TB/HIV

The use of CPT and ART among co-infected patients has improved throughout Year 1. CPT use increased from 48% baseline to 58% between April-June 2011 (Q3), followed by 67% between July-September, which is close to the target of 70%. ART use among co-infected patients increased from 39% at baseline to 44% in Quarter 3 and 67% by the end of Quarter 4, surpassing the target of 60%. These improvements in TB/HIV indicators may be in part the result of several TB/HIV collaborative training activities. Multiple trainings were conducted for DOTS staff on TB/HIV collaborative activities as well as HIV Counseling and Testing (HCT) in at least eight states. Several rounds of training of laboratory staff on AFB microscopy and HIV testing were also conducted.

HSS

Renovation commenced on ten DOTS facilities, two NLR sites and five laboratories. The renovation of these facilities, as well as the anticipated remaining sites, will be completed with COP 11 funding starting in late 2011.

M&E, OR and Surveillance

Numerous joint supervision visits were planned and carried out. Supervision was conducted at the state level to monitor the implementation of TB/HIV collaborative activities in the states and to strengthen the M&E functions at state and LGA levels to ensure quality data. Supervision was carried out at LGA level to ensuring an efficient and effective implementation of TB/HIV collaborative activities in accordance with the stipulated National guidelines and to validate local supervisory activities in those LGAs. At the health facility level, supervision was done to mentor facility staff on reporting and recording formats and thereby assuring the quality of data. TB CARE I also supported state Quality Assurance Officers to supervise microscopic centers.

6.16 Pakistan

Technical Areas	Total population	181 M
M&E and OR	TB CARE geographic coverage	National
	Lead Partner	KNCV
	Collaborating partners	
	TB CARE I start date	June 2011

M&E, OR and Surveillance

TB CARE I-Pakistan's mandate is to assist the NTP in the completion of the National Prevalence Survey. At the start of TB CARE I, 37 clusters had been completed. As of the end of September 2011, 42 additional clusters have been done, indicating that only 16 more clusters need to be completed, which should be accomplished by the end of 2011. Data entry of all clusters is projected to be carried out by the end of the year, although data validation will take longer. The Prevalence Survey is planned to be completed by

the end of March 2012, including all field activities, data entry, data validation and preparation of the draft report.

6.17 South Sudan

Technical Areas	Total population	9 M
Universal Access Laboratories TB/HIV HSS	TB CARE geographic coverage	National
	Laboratories	MSH
	TB/HIV	KNCV, WHO
	HSS	May 2011
	Cases notified (all forms), 2010	6,424
	New confirmed TB cases notified, 2010	2,267
	Treatment Success Rate, 2009	81%
	MDR cases diagnosed, 2010	3
	MDR cases put on treatment, 2010	-
	MDR cases put on treatment, 2010	70

Universal and Early Access

In the first year, TB CARE I has improved the capacity of health workers to diagnose and treat TB. The quality of TB services was improved through the training of clinicians, nurses and laboratory staff. In total, 80 health workers were trained during the reporting period. In addition TB CARE I supported the NTP in the development of three policy documents: SOPs to improve case detection at health facilities, the 2nd NTP strategic plan through the revision of Strategic Plan 2009 – 2013 and the first NTP Annual Report.

Laboratories

Significant progress has been made during Year 1. Laboratory coverage has improved from a baseline of one laboratory per 208,656 to one per 134,815 at the end of Year 1. This is largely due to the NTP increasing the number of TB diagnostic centers from 42 to 65. TB CARE I has worked very closely with the NTP to identify facilities which required support to improve TB diagnosis in an integrated approach. Renovations are on-going in one laboratory. Once complete it will strengthen general laboratory services and provide quality TB diagnostic services in an integrated approach.

Laboratory technicians have been trained on TB sputum smear microscopy. In addition, training manuals were developed and will be field tested in Year 2 before the final manuals are produced. A TOT for laboratory supervisors will be conducted before the end of 2011.

The SOPs on Bio-safety in the Central Reference Laboratory (CRL) and peripheral laboratories were developed. The equipment for the TB CRL has been procured and delivered but have yet to be installed.

TB/HIV

A workshop was conducted for management staff from the NTP and HIV directorate at central and state level on the Management and Organizational Sustainability Tool for TB/HIV collaboration (MOST for TB/HIV). An action plan to address key challenges was developed during the workshop and will be implemented in Year 2. (Photo: Group work during the clinician's training for TB management in Torit.)

TB CARE I supported Technical Workgroup Meetings which reviewed the TB screening tool for HIV positive persons and updated the SOPs for identifying a TB suspect among PLWHA. TB CARE I supported a quarterly review meeting for the state TB and HIV coordinators from the 10 states. The meeting has improved collaboration between TB and HIV programs at state level. The NTP is now able to support these meeting through Global Fund grants.

HSS

TB CARE I supported the NTP in the development of an assessment tool to identify facilities that can integrate TB services into primary healthcare. The tool has been sent out to partners implementing primary healthcare, and out of the 21 which have responded, ten facilities have been identified for integrating TB services. The response from partners is slow, but TB CARE I will support NTP to explore the possibility of using the health and NGO forums to reach most of the partners implementing primary healthcare. Two out of three primary healthcare centers (PHCs) that were identified for minor refurbishment in Year 1 are undergoing renovation and the health workers have been trained on TB diagnosis and management. A framework for integrating TB services was developed and this will provide minimum standards for integrating TB services. In preparation for the integration of TB laboratory services in PHCs, laboratory staff were trained on sputum smear microscopy.

6.18 Vietnam

Technical Areas	Total population	87.7 M
Universal Access Laboratories Infection Control PMDT TB/HIV HSS M&E and OR	TB CARE geographic coverage	28% of pop.
	Lead Partner	KNCV
	Collaborating partners	-
	TB CARE I start date	March 2011
	Cases notified (all forms), 2010	99,035
	New confirmed TB cases notified, 2010	87,658
	Treatment Success Rate, 2009	92%
	MDR cases diagnosed, 2010	-
	MDR cases put on treatment, 2010	101

Universal and Early Access

The NTP guidelines on the management of TB in children were reviewed by the NTP and TB CARE I. Training curricula and materials have been developed.

Laboratories

In five MDR-TB treatment centers, laboratory renovation proposals to upgrade the bio-safety status were developed by local staff and designers with technical support from TB CARE I. Renovations are expected to begin soon.

The final decision on the GeneXpert implementation plan (a stepwise approach), quantification (17) and site selection (11 MDR treatment centers (provinces, districts), four HIV clinics (provincial general hospitals), and two Pediatric Hospitals) has been made by the USAID country Mission and stakeholders. Two GeneXpert machines and 2,700 cartridges for Phase I have been purchased through WHO; the remaining 15 machines will be procured in Phase II and III.

IC

A TB-IC trainer group has been established and consists of the NTP, the National Institute of Hygiene and Epidemiology, WHO and TB CARE I. Training curriculum and materials are available. Three TB-IC training courses for TB and HIV staff in three provinces have been conducted in July 2011; TB CARE I supported on-the-job training for the TB-IC trainer group. TB-IC assessments were conducted in 50 DOTS treatment units (DTUs) and HIV clinics.

PMDT; TB/HIV; M&E, OR and Surveillance

Activities in these areas have just started.

HSS

The first workshop on TB investment awareness for members of parliament of nine North-East provinces was conducted.

6.19 Zambia

Technical Areas	Total population	13 M
Universal Access Laboratories Infection Control PMDT TB/HIV HSS M&E and OR	TB CARE geographic coverage	51% of pop.
	Lead Partner	FHI 360
	Collaborating partners	KNCV, WHO
	TB CARE I start date	June 2011
	Cases notified (all forms), 2010	48,616
	New confirmed TB cases notified, 2010	42,306
	Treatment Success Rate, 2009	91%
	MDR cases diagnosed, 2010	-
	MDR cases put on treatment, 2010	-
	MDR cases put on treatment, 2010	101

Universal and Early Access

TB CARE I provided technical and financial support for the finalization of the National TB Strategic Plan by the NTP and partners. Technical support was also provided on the country's strategy for scale up of ACSM activities that will enhance participation of many stakeholders in TB control. This will enhance equity in LED microscopy techniques and case detection with the LED microscopes procured under the TB CAP project for these provinces.

Laboratories

EQA visits were made to 44 district level diagnostic centers in the five target provinces by staff members from the Chest Diseases Laboratory, the Tropical Diseases Research Centre and the provincial hospital laboratory. During those visits, it was determined that 88% of laboratories were performing TB microscopy with over 95% correct microscopy results, which surpassed the baseline and target of 80%.

Fifteen laboratory staff members from the four none-TB CARE I target sites were trained with project support to provide equity in LED based microscopy training. TB CARE I also procured a GeneXpert machine and accessories that were placed at the NRL's Chest Diseases Laboratory, with plans to move it to a point of care facility in the future. The project also printed 272 copies of the Laboratory SOPs.

IC

TB CARE I provided technical support on facility level planning to three facilities targeted for MDR-TB management, in collaboration with the in-country consultants. 58 HCWs from the three facilities received orientation and participated in the development of TB-IC plans for their facilities. The priority area identified in all the three sites was the implementation of administrative measures, which will help in the early diagnosis of TB in clients coming to the facilities. The TB-IC plans will be included in the facility annual action plans.

PMDT

TB CARE I hired a consultant architect to assess three facilities earmarked for MDR-TB management. Following this assessment, the NTP has been able to decide on two of the three facilities which will receive renovation support from TB CARE I.

TB/HIV

TB CARE I supported one national level TB/HIV coordinating body meeting and six district level TB/HIV coordinating body meetings in the Copper Belt province.

HSS

TB CARE I provided technical and financial support for the finalization of the National TB Strategic Plan. The training of 50 HCWs in the community volunteers' modules was also done to provide HCWs with knowledge for community level responses in TB and HIV management, including patient care and support, community education, communication and data management. TB CARE I also provided support for the commemoration of the World TB Day on March 24, 2011 in Chipata, Eastern Province. (Photo: World TB Day in Chipata, Eastern Province on March 24, 2011.)

M&E, OR and Surveillance

Three technical review meetings were held in the Copperbelt, Luapula and North Western Provinces in the fourth quarter of project implementation. These meetings are held every quarter to review provincial TB and HIV data with representative district focal persons and share updates on implementation of TB, TB/HIV and Leprosy control.

Drug Management

Activities related to Drug Management will begin in Year 2. TB CARE I will work with the NTP on drug management and supply to enable the project to receive updates on the availability of fixed-dose combinations for First Line drugs (FLDs) and SLDs.

6.20 Zimbabwe

Technical Areas	Total population	12.6 M
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Universal Access PMDT TB/HIV HSS M&E and OR	TB CARE geographic coverage	49% of pop.
	Lead Partner	The Union
	Collaborating partners	KNCV, WHO
	TB CARE I start date	May 2011
	Cases notified (all forms), 2010	47,685
	New confirmed TB cases notified, 2010	11,686
	Treatment Success Rate, 2009	79%
	MDR cases diagnosed, 2010	40
	MDR cases put on treatment, 2010	27
	MDR cases put on treatment, 2010	101

Universal and Early Access

TB CARE I trained 25 provincial trainers on TB and TB/HIV management including childhood TB (5 per province). All provinces were rolling out the training at district level. To date, 19 out of the planned 20 training workshops have been conducted in all provinces, with an emphasis on case management, DOT and local use of data.

All five provinces successfully conducted support supervision visits to all 37 districts, and all the districts in turn conducted support supervision visits to selected peripheral primary health care centers. (Photo: Primary health care center TB supportive supervision visit to Tsholotsho district.)

PMDT

The draft DRS protocol was prepared by TB CARE I and submitted to the NTP. It is now awaiting finalization and submission to the Zimbabwe Medical Research Council by the NTP. The actual DRS has not begun because proficiency testing of the NRL will not be completed until December 2011. Data collected between January-September 2011 indicates that 1% of sputum positive pulmonary TB patients have DR-TB (25/2463).

National MDR-TB guidelines have been developed and preparations for the development of training materials for MDR-TB have commenced.

TB/HIV

An international TB/HIV training course was conducted in Zimbabwe, 29 participants from all 8 rural provinces and Chitungwiza city attended.

Five IC training sessions (one per province) were conducted. The training included development of IC plans by 35 districts. As a result, 85 % of districts (35/41) have a written IC policy for TB which is consistent with national guidelines, which exceeds the target of only 50% in Year 1.

HSS

The national MDR-TB guidelines were finalized, bringing the total number of TB CARE I technical areas where standards, norms or guidelines have been developed to six out of the targeted seven areas; the IC guidelines are pending completion.

An HR assessment was carried out as a foundation for the development of HR strategic and implementation plans to be done in Year 2. Findings included: 1) TB control is fully integrated in the health system and the NTP has no control over the Human Resources, 2) The NTP suffers from lack of clarity in the organizational structure affecting staff and program performance, 3) The current HR strategy of the MOHCW is in line with NTP's HR ambitions and could support these ambitions, 4) NTP is strongly donor dependent for funding of salaries, training and supervision, 5) Innovative learning approaches are needed to enhance training effectiveness and limit staff absence from work stations, 6) HRM systems need to be developed or strengthened (i.e. job descriptions, work planning and performance appraisal systems).

M&E, OR and Surveillance

An international review of the NTP was conducted. The findings, which will guide future programming, included the following:

- **Program Management:** a) Put in place an effective and functional national level organogram with effective lines of accountability, b) Revisit the roles and responsibilities of officers in line with the Stop TB Strategy, c) Improve involvement of partners and strengthen their coordination c)the national TB strategic plan must be costed.
- **TB diagnosis:** a) Increase access to sputum smear microscopy at peripheral level by decentralizing sputum microscopy to clinic level as far as possible, b) develop algorithms for use of new TB diagnostic tools, c) strengthen diagnosis and management of childhood tuberculosis, d) strengthen EQA of laboratory services.
- **Treatment and patient support:** a) Train and supervise community treatment supporters, b) Conduct regular support and supervision at all levels.
- **M&E:** a) Conduct regular and onsite data verification b) Encourage analysis and utilization of TB data at all levels.
- **TB/HIV collaboration:** a) Widely disseminate TB, TB/HIV and ART guidelines, b) Re-define the scope of work of nurses to include ART initiation, c) Develop a TB M&E plan that includes inter-linkages with HIV monitoring systems.

- **MDR-TB:** a) Conduct a TB DRS b) Finalize and implement MDR-TB guidelines and operational plans.

Performance reviews were conducted at all three levels of the system: at national level, in four out of five supported provinces; and in 20 review meetings involving 26 districts. Overall data indicated general improvement in performance indicators such as notification rates and pulmonary TB diagnoses with no sputum result. Development of the data analysis and use guidelines was completed; the document is due to be piloted in the first quarter of Year 2.

The first ever OR orientation course was conducted over 3 days for 11 provincial health workers. Participants were trained on how to conduct OR and develop a research protocol. All attendees (11) developed an OR topic to be implemented in Year 2 of TB CARE I (one topic per province and main city).

7. TB CARE I and Knowledge Exchange

TB CARE I uses knowledge exchange to ensure that all stakeholders and a wider audience benefit from acquired experience, information, best practices and research pertinent to TB control worldwide. During the first year of TB CARE I the following items were completed:

First Newsletter

The first newsletter detailing current work and achievements was created and distributed electronically to our partners, staff members and people who have signed up to receive it through our website. Starting in Year 2, TB CARE I plans to publish newsletters every quarter with the second edition due out early in Year 2.

Website

A new website for TB CARE I (www.tbcare1.org) was built and launched. The site provides information on the project's approach and mandate, the coalition members, the countries where we work, the latest news and updates from the project and other in-depth information; all tools and reports developed under TB CAP and TB CARE I are available for download on the site as well. The website has been built to track not only where our users originate from, but also how they arrive at the site, what they look at and most importantly what documents they download.

(Photo: The homepage of the new TB CARE I website.)

Updated Toolkit/Laboratory Tools

The first TB CARE I branded toolbox and Laboratory Toolbox were published and contain all the currently available tools. The new TB CARE I Toolbox contains all tools already disseminated under TB CAP as well as many new tools including: Implementing The WHO Policy on TB-IC, Tools for Implementing the WHO Policy on TB-IC, TB-IC M&E, OR Templates, Practical Guide to Improve Quality TB Patient Care (Spanish), Guidelines on Prevention of TB Transmission in Ethiopia, three DR Congo publications on TB/HIV (French), The Platform – 5 Years of HRD Experience, revised TB Recording & Reporting forms and Registers (Spanish/French), MOST for TB (Spanish), Manual on the use of the RDQA Tool for TB Monitoring, New Diagnostic Tools for TB Control and the TB Literacy Toolkit. The Laboratory Toolbox contains the latest version of EPIdata and related data management software. These CD's will be updated annually to incorporate any new tools produced that year.

(Photo: Copies of the new TB CARE I Laboratory Tools and TB CARE I Toolbox)

New TB CARE I Poster/Brochure

A new brochure and poster were also developed and printed, which highlight the targets, technical areas, over-arching elements and unique qualities of TB CARE I. The poster was displayed for the first time in the TB CARE I booth at the 42nd Union World Conference in Lille, France, where the new brochures were also disseminated to partners and the public. The brochure is also available for people to download from the website. The poster and brochures will be used at all future TB CARE I events.

(Photo: TB CARE I brochure, above, and TB CARE I poster, below)

Next Steps:

In line with a strong focus on communicating our successes, future reports (both quarterly and annual) will contain stories of TB CARE I projects or activities which have impacted countries, communities or individuals. In the coming year, TB CARE I will develop four, six-page publications to highlight specific technical areas and significant achievements, the first of which will be on GeneXpert.

8. Financial Overview

TB CARE I officially started in October 2010. The first few months were spent on developing core, regional and country workplans. The total obligated amount as of MOA #3, issued on September 15, 2011, is \$73.3 million. Table 26 shows the obligated amount per funding source and project year. For Year 1, \$53.9 million was obligated; to date for Year 2 \$19.4 million has been obligated.

Table 26: Obligated amount as of the end of September 2011

Obligated Amount	Year 1	Year 2	Total
Core	3.500.000	4.975.000	8.475.000
Regional	884.314	600.000	1.484.314
Countries	49.525.598	13.838.776	63.364.374
Grand Total	53.909.912	19.413.776	73.323.688

The total expenditures and accruals for the fourth quarter were \$15.85 million, an increase of 75% compared to the third quarter (\$9,000,447), reaching the desired quarterly burn rate. The table below shows the increased spending of the past year, from an expected slow expenditure rate during the first two quarters through to the higher spending of the last quarter.

Table 27: Cumulative quarterly expenditures as of the end of September 2011

Quarter	Management	Core	Region	Country	Total
Oct 10-March 11	172.128	181.457	13.622	1.734.558	2.101.766
April-June 11	210.164	844.046	143.906	7.802.331	9.000.447
July-Sept11	544.668	1.125.162	360.690	13.719.193	15.749.712
Total	926.960	2.150.665	518.218	23.256.082	26.851.924
ACF allocation	-3.755.793		65.790	3.690.003	0
Total including ACF	-2.828.833	2.150.665	584.008	26.946.084	26.851.924

For the 30 core projects \$1,235,162 was spent in the period July-September 2011. This increases the level of spending from 18% at the end of June to 56% of the approved budgets per end of September. Expenditures vary greatly due to the different start dates and accruals not being reported by all partners.

The low spending of the management funds is mainly caused by low PMU spending as more salary costs were covered by TB CAP savings than expected. Also, there was a more efficient use of PMU travel funds and equipment funds and a less expensive than budgeted Country Directors meeting. PMU has spent much less on advocacy materials than planned for Year 1. In conclusion we expect at least \$500,000 in savings from the Year 1 management budget.

The level of spending for the four regional projects has increased from 18% per the end of June to 59% by the end of September 2011. The CAR project reported no expenditures due to the late approval date in early September.

The total obligation for 20 country projects for Year 1 was \$49.5 million. The total expenditures were \$26.3 million, although when the ACF of \$3.7 million is excluded the expenditures were \$23.3 million, which leads to a level of spending of 47%. Here also the level of expenditures varies greatly, due to differences in project start date, not always reporting on accruals and pace of implementation.

Table 28: Cumulative financial overview as of the end of September 2011 for Year 1 projects

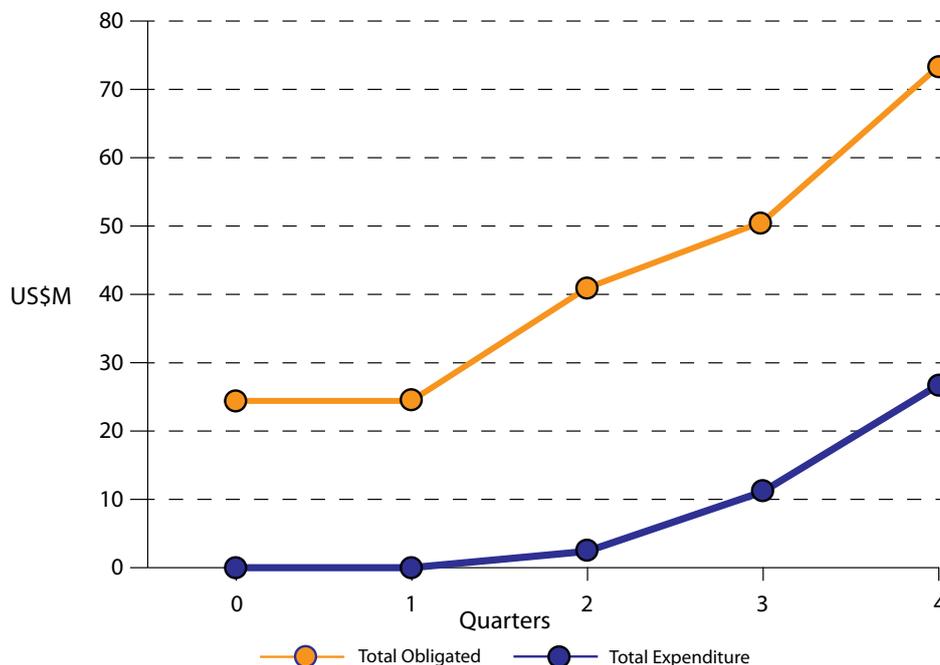
	Obligated Amount	Approved Budget	Expensed	Accruals	Total expenditures	Remaining	Level of Spending
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Management	a	b	c	d	e = (c+d)	f	g
APA 1 3)	0	1,810,257	836,172	90,788	926,960	2,828,833	51%
ACF 2)	0	-3,755,793	-3,755,793	0	-3,755,793		100%
Core							
APA1	3,500,000	4,016,756	1,922,731	337,934	2,260,665	1,239,335	56%
Regional							
APA1	884,314	496,753	442,016	76,202	518,218	366,096	59%
ACF 2)	0	65,790	65,790		65,790	-65,790	100%
Countries							
APA1	49,525,598	3,111,540	21,294,556	1,961,527	23,256,082	26,269,516	47%
ACF 2)	0	3,690,003	3,690,003	0	3,690,003	-3,690,003	100%
Grand Total	53,909,912	9,369,516	24,495,475	2,466,451	26,961,924	27,013,778	50%

1. The total expenditures are \$139,000 higher than the SF-425 report as submitted on October 28th. This is caused by later reported accruals on core projects C5.2.1 and C1.1.5.
2. The ACF, which is 9% of the country and regional obligations, is used to cover management costs. After four quarters, 100% of the budgeted ACF has been transferred to the management budget. The shift of the ACF from the country funds to the management funds is shown separately in this table.
3. The PMU manages the one-year extension of TB CAP as well as TB CARE I. The overall management budget was much higher than the \$2 million indicated in the table; however a great proportion has been covered by TB CAP funds. As a result, a part of Year 1 ACF funds is left available (\$1,683,299) to fund core projects. This explains why the approved core budgets are higher than the MOA (\$4,016,756 vs. \$3,500,000).
4. The level of spending for the management and the core budgets is based on the approved budgets. The level of spending for the regional and country projects is based on the obligated amount. The total level of spending for the project is calculated as the total expenditures over the total obligated amount.
5. Only the obligation for Year 1 is used in this table. The September 2011 obligations for TB-IC are left out of this table to compare just Year 1 obligated funds with Year 1 spending.

Figure 4 shows the obligations and the expenditures (in millions of USD) for the first year of the TB CARE I project.

Figure 4: TB CARE I Year 1 expenditures vs. obligations



TB CARE I is required to cost share a minimum of 15.7% of the total obligated amount. Table 29 shows the cost share as reported through September 2011. Only KNCV reported on cost share for the first year. The other partners will report following their audits.

Partner	Year 1	Total
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ATS		0
FHI		0
JATA		0
KNCV	1.241.968	1.241.968
MSH		0
The Union		0
WHO		0
Total		1.241.968
		53.909.912
Percentage Cost share		2,3%
Required percentage Cost share		15,7%
Required amount Cost share		8.463.856

Tables 30, 31, and 32 provide a financial summary of the core, country and regional projects respectively.

Table 30: Financial Overview of Core Funded Projects as of the end of September 2011

Project	Approved Budget	Declared expenditures	Accrued	Total	Level of spending as % approved budget
CORE management APA1	1,810,257	836,172	90,788	926,960	51%
001 - Support to Stop TB Working Groups	359,152	166,570	60,732	227,302	63%
002 - Support to CORE	53,913	61,220	0	61,220	114%
111 - Tool to identify TB most at risk and vulnerable populations	206,233	116,225	93	116,318	56%
115 - Adapt and Pilot Patient Centered Package	207,478	22,082	110,000	132,082	64%
211 - Strengthening of centres of excellence for PMDT	73,288	22,837	21,120	43,957	60%
311 - Develop tools to measure TB incidence and prev in hc workers	200,627	188,563	0	188,563	94%
321 - Core package of IC interventions	45,732	25,637	0	25,637	56%
332 - Training and mentoring on TB-IC	128,352	108,663	0	108,663	85%
411 - TB Infection Control at Community level	125,402	37,794	3,107	40,901	33%
422 - Guidelines for evaluations of contacts to infectious cases	290,061	242,462	0	242,462	84%
431 - Assessment mortality data	273,016	113,212	0	113,212	41%
511 - Guide on electronic recording and reporting TB care+control	146,538	93,204	0	93,204	64%
512 - Guide on inventory studies to assess level of underreporting	129,351	49,833	0	49,833	39%
521 - Support M&E efforts of NTPs	202,063	32,976	139,000	171,976	85%
611 - Guidelines on developing national lab strategic plans	144,711	55,465	0	55,465	38%
612 - Tool for Lab Network Assessment	95,400	76,940	0	76,940	81%
613 - Advisory Group members LEO	22,701	4,800	3,882	8,681	38%
614 - Training for Global Fund round 11 consultants	78,387	78,387	0	78,387	100%
621 - Lab accreditation tools and roadmap	129,525	59,605	0	59,605	46%
631 - Guiding and coordinating Xpert MTB/RIF implementation	53,238	22,178	0	22,178	42%
641-Assess quality of WHO-GLI SRLN and individual SRLs using GLI	82,180	29,342	0	29,342	36%
642-Develop 2 labs in Africa to join SRLN	151,634	55,369	0	55,369	37%
643-Meeting of the SRLN	162,015	2,053	0	2,053	1%
711-Mapping TB within National Health Plans	116,006	185	0	0	0%
712-Create political commitment & financing database	139,470	396	0	396	0%
713-Enhancement of the Planning & Budgeting Tool	112,661	12,348	0	12,348	11%
741-Training national leaders and their teams on HRD tools	85,933	77,603	0	77,603	90%
751-Build capacity of civil society in TB control	201,689	166,784	0	166,784	83%

Table 33 and 34 show respectively country and core workplan completion rates in comparison with level of spending; completion rates for the country workplans are broken down by technical area.

Countries	Technical Areas										Overall work plan completion	Level of budget spending	Variance (Spending vs. work plan completion)
	Universal and Early Access	Laboratories	Infection Control	PMDT	TB/HIV	HSS	M&E, OR and Surveillance	Drug supply and management					
Afghanistan	47%	100%	20%	N/A	N/A	67%	100%	N/A	N/A	67%	14%	-53%	
Botswana	100%	58%	100%	100%	100%	N/A	100%	N/A	N/A	93%	104%	11%	
Cambodia	86%	86%	67%	63%	100%	100%	58%	100%	100%	82%	73%	-10%	
CAR - Kazakhstan	61%	45%	50%	75%	69%	75%	61%	50%	50%	61%	58%	-3%	
CAR - Kyrgyzstan	66%	50%	30%	31%	50%	71%	100%	0%	0%	50%	62%	13%	
CAR - Uzbekistan	17%	4%	20%	5%	0%	33%	0%	0%	0%	10%	21%	11%	
Djibouti	N/A	89%	60%	10%	N/A	92%	N/A	N/A	N/A	63%	79%	17%	
Dominican Republic	65%	N/A	19%	13%	N/A	42%	25%	N/A	N/A	33%	38%	5%	
Ethiopia	100%	75%	100%	98%	97%	100%	96%	100%	100%	96%	86%	-10%	
Ghana	89%	100%	N/A	N/A	58%	94%	77%	N/A	N/A	84%	91%	7%	
Indonesia	76%	60%	73%	63%	86%	61%	60%	42%	42%	65%	61%	-4%	
Kenya	82%	98%	50%	75%	81%	95%	83%	N/A	N/A	80%	85%	5%	
Mozambique Malaria	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	54%	36%	-18%	
Mozambique OP	33%	18%		38%	38%	15%	25%	N/A	N/A	28%	38%	10%	
Namibia	69%		67%	65%	70%	66%	68%	N/A	N/A	67%	74%	7%	
Nigeria	28%	78%	39%	39%	N/A	39%	70%	N/A	N/A	49%	47%	-2%	
Nigeria COP	N/A	N/A	63%	40%	30%	25%	27%	N/A	N/A	37%	83%	46%	
Pakistan	N/A	N/A	N/A	N/A	N/A	N/A	53%	N/A	N/A	53%	53%	0%	
South Sudan	79%	67%	N/A	N/A	63%	94%	N/A	N/A	N/A	76%	53%	-23%	
Vietnam	54%	33%	39%	0%	17%	25%	42%	N/A	N/A	30%	17%	-13%	
Zambia	70%	71%	63%	50%	43%	66%	55%	25%	25%	55%	23%	-32%	
Zimbabwe	65%	N/A	N/A	21%	75%	96%	62%	N/A	N/A	64%	96%	33%	
Total										58%	54%	-4%	
Regional Projects													
CoE	N/A	N/A	N/A	79%	N/A	N/A	N/A	N/A	N/A	79%	85%	6%	
SNRL	N/A	100%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100%	93%	-7%	
ECSA	N/A	N/A	N/A	65%	N/A	N/A	N/A	N/A	N/A	65%	71%	6%	

751 -Build capacity of civil society in TB control	201,689	166,784	0	166,784	83%	75%	3 mths extension approved
	5,827,013	2,758,903	428,722	3,187,440	55%		

Annex 1 : Status of Year 1 TB CARE I Core Projects

Technical Areas	Code	Lead	Title	Expected Outcome(s) Year 1	Status	Outcome/Deliverables
Universal and Early Access	C1.1.1	KNCV	Tool to identify TB most at risk and vulnerable populations	<ul style="list-style-type: none"> • Framework format developed 	Ongoing	
	C1.1.5	KNCV	Adapt and pilot patient centered package	<ul style="list-style-type: none"> • Methodology developed • Two kick-off workshops conducted 	Ongoing	
PMDT	C2.1.1	PMU	Strengthening of regional and local technical collaboration centers (TCC) for PMDT	<ul style="list-style-type: none"> • Assessment of technical collaboration center in India • Functioning exchange between TCCs 	Ongoing	
Infection Control	C3.1.1	WHO	Develop a tool to measure TB incidence in HCWs		Ongoing	
	C3.2.1	PMU	Core Package of IC Interventions	<ul style="list-style-type: none"> • Core TB-IC package developed 	Completed	Outcome achieved: TB CARE I participated in the consensus conference. Project is led by TB CARE II.
	C3.3.2	KNCV	Training and mentoring on TB-IC	<ul style="list-style-type: none"> • 9 IC consultants trained and underwent one mentored field visit 	Completed	Outcome achieved: 12 IC consultants have been trained and nine completed mentored field visits.

TB/HIV	C4.1.1	FHI	TB Infection Control at Community Level	<ul style="list-style-type: none"> • ToT Curriculum developed • How-to manual developed 	Ongoing	
	C4.2.2	ATS	Guidelines for evaluations of contacts to infectious cases of tuberculosis	<ul style="list-style-type: none"> • WHO-approved set of guidelines developed 	Ongoing	
		KNCV	Assessment of TB/HIV mortality data	<ul style="list-style-type: none"> • Five high-burden countries assessed • Strategy to improve M&E systems developed 	Ongoing	
M&E, OR and Surveillance	C5.1.1	WHO	Guide on electronic recording and reporting for TB care and control	<ul style="list-style-type: none"> • Guide on ERR developed 	Ongoing	
		WHO	Guide on inventory studies to assess the level of TB under-reporting	<ul style="list-style-type: none"> • Guide on inventory studies developed 	Ongoing	
	C5.2.1	MSH	Develop M&E COP for NTPs	<ul style="list-style-type: none"> • Increased use of data for decision-making in TB CARE countries 	Completed	Outcome achieved; continuing in Year 2. A workshop "Using TB Information for Decision Making" was conducted. It was attended by 31 participants from 16 countries (Afghanistan, Bangladesh, Cambodia, CAR, DR Congo, Ethiopia, Ghana, Indonesia, Kenya, Mozambique, Namibia, Nigeria, South Sudan, Tanzania, Zambia, and Zimbabwe). Participants developed mini M&E plans for their countries, which will be implemented in Year 2.

Laboratories	C6.1.1	KNCV	Practical handbook for the development of a national laboratory strategy	• Practical handbook developed	Ongoing	
	C6.1.2	Union	Tool for laboratory network assessment	• Consensus tool developed and tested	Ongoing	
	C6.1.3	WHO	Advisory Group members LOE		Completed	Outcome achieved; themes and indicators established for all Technical areas
	C6.1.4	WHO	Training for Global Fund Round 11 Consultants	Consultants are trained on new tools and approaches in TB control and have the necessary skills to provide consistent and quality TA for successful Global Fund Round 11 proposal development.	Completed	Outcome achieved; consultants trained to provide quality TB for GF Round 11 proposal development.
	C6.2.1	KNCV	Laboratory accreditation tools and roadmap	• Laboratory accreditation toolbox and templates drafted	Completed	Outcome achieved. Laboratory accreditation toolbox and templates drafted. The toolbox can be found on the GLI website: www.GLIquality.org .
	C6.3.1	WHO	Guiding and coordinating Xpert MTB/RIF implementation	• Guidance made available on scaling up and implementing new testing algorithms incorporating Xpert MTB/RIF	Completed	Outcome achieved. The document has been developed and published on the GLI website: http://www.tbcare1.org/publications/toolbox/tools/lab/Rapid_Implementation_of_Xpert_MTB-RIF_diagnostic_test.pdf
	C6.4.1	WHO	Assess quality of WHO-GLI SRLN and individual SRLs using GLI assessment tool	• Draft of GLI assessment tool revised	Completed	Outcome achieved. The GLI assessment tool has been revised and will be available soon.
	C6.4.2	Union	Develop Benin NRL in Africa to join SRLN	• Benin NRL is staffed with trained and competent personnel; quality management system in place and adherence to procedures ensured	Ongoing	
	C6.4.3	WHO	Meeting of the SRLN	• Meeting of SRLN convened and consensus workplan and strategy developed	Ongoing	

Health Systems Strengthening	C7.1.1	WHO	Increased and sustained political and financial commitment to TB prevention, care and control	<ul style="list-style-type: none"> Improved TB plans, indicators and budget embedded within national health plans and/or strategies. 	Ongoing	
	C7.1.2	ATS	Create political commitment and financing database	<ul style="list-style-type: none"> Political commitment (measured by domestic financing for TB) increased 	Ongoing	
	C7.1.3	WHO	Enhancement of the planning and budgeting tool	<ul style="list-style-type: none"> Planning and budgeting tool enhanced 15 participants trained on its use 	Ongoing	
	C7.4.1	MSH	Training national leaders on HRD Tools	<ul style="list-style-type: none"> Action Plan on HRD in place in NTPs 	Completed	Outcome achieved. Action plans on HRD in place six NTPs that participated in the program (Afghanistan (2), Ghana, Indonesia, Pakistan, and Uganda).
	C7.5.1	KNCV	Build capacity of civil society in TB Control	<ul style="list-style-type: none"> A methodology to build capacity of civil society organizations in TB control developed and pilot tested 6 civil society organizations in 2 countries have a TB activity plan and started implementation 6 civil society organizations in 2 countries have partnered with national and/or local stakeholders in TB control 	Ongoing	
Overarching elements	C0.0.1	WHO	Support to the Sub Working Groups of the Stop TB Partnership	<ul style="list-style-type: none"> Strategic areas of work discussed and agreed in seven groups Reports from all meetings available 	Ongoing	
	C0.0.2	KNCV	Support to CSHGP and CORE Group	<ul style="list-style-type: none"> CORE PVOs improved competence in providing TB services 	Completed	Outcome achieved. Two evaluation missions took place (India and Malawi).
	ECSA	KNCV	ECSA	<ul style="list-style-type: none"> Member states with PMDT scale up plans Best practices on PMDT from member states shared 	Ongoing	

Annex 2: TB CARE I Year 1 Indicator Results

Geographic Coverage of TB CARE I

Country	Total Population
Africa	
Botswana	1,849,681
Djibouti	800,000
Ethiopia	81,700,000
Ghana	24,223,431
Kenya	40,000,000
Mozambique	23,044,381
Namibia	2,143,411
Nigeria	160,967,501
South Sudan	9,026,000
Zambia	13,046,508
Zimbabwe	12,595,417
Africa subtotal	369,396,330
Asia	
Afghanistan	24,500,000
Cambodia	14,024,142
CAR - Kazakhstan	16,198,314
CAR - Kyrgyzstan	5,447,960
CAR - Uzbekistan	28,128,600
Indonesia	234,181,200
Pakistan	187,342,721
Vietnam	87,692,218
Asia subtotal	597,515,155
Latin America	
Dominican Republic	9,884,371
Latin America subtotal	9,884,371
Total:	976,795,856

Country	Total Population	Specific TB CARE I-supported population	% population coverage by TB CARE I
Mozambique	23,044,381	15,117,499	66%
Nigeria	160,967,501	101,186,638	63%
Zambia	13,046,508	6,651,464	51%
Zimbabwe	12,595,417	6,184,590	49%
Afghanistan	24,500,000	11,672,600	48%
CAR - Kazakhstan	16,198,314	5,235,010	32%
CAR - Kyrgyzstan	5,447,960	1,294,052	24%
Indonesia	234,181,200	159,159,700	68%
Vietnam	87,692,218	24,449,701	28%

Dominican Republic	9,884,371	7,313,600	74%
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C1. Number of cases notified (all forms)					C2. Number of new confirmed TB cases notified			
Year of Data	2009				2010			
Country	# of cases notified (all forms)	# of male cases notified (all forms)	# of female cases notified (all forms)	% female notified cases (all forms)	# of all new TB cases reported to the NTP	# of all new male TB cases reported to the NTP	# of all new female TB cases reported to the NTP	% all new cases that are female
Afghanistan	28,238	10,471	17,767	63%	26,270	9,799	16,471	63%
Botswana	7,632	4,266	3,366	44%	6,560	3,619	2,941	45%
Cambodia	41,628	U	U		40,460	U	U	
Djibouti	4,191	U	U		1,181	769	412	35%
Dom. Rep.	4,160	U	U		3,640	1,312	718	20%
Ethiopia	156,927	U	U		149,508	U	U	
Ghana	15,145	9,693	5,452	36%	14,124	9,039	5,085	36%
Indonesia	302,861				296,272	125,068	171,204	58%
Kazakhstan	15,644	8,669	6,975	45%	4,925	3,015	1,910	39%
Kenya	106,083	U	U		95,604	48,500	36,994	39%
Kyrgyzstan	9,468	5,402	4,066	43%	5,308	2,970	2,338	44%
Mozambique	46,174	U	U		U	U	U	
Namibia	12,625	U	U		10,103	U	U	
Nigeria	90,447	U	U		45,416	27,523	17,893	39%
South Sudan	6,424	U	U		2,267	1,345	922	41%
Vietnam	99,035	U	U		87,658	U	U	
Zambia	48,616	28,571	20,045	41%	42,306	24,534	17,772	42%
Zimbabwe	47,685	24,537	23,148	49%	11,686	6,132	5,554	48%
Total:	1,042,983	91,609	80,819	47%	843,288	263,625	280,214	52%

C3. Number (and percent) of confirmed TB cases among Health Care Workers (HCWs)					
Year of Data	2010				
Country	Total # TB cases among HCWs	# Male TB cases among HCWs	# Female TB cases among HCWs	# HCWs in reporting sites	% of HCWs dx w/ TB in 2010
Afghanistan	U	U	U	U	
Botswana	U	U	U	U	
Cambodia	U	U	U	U	
Djibouti	U	U	U	U	
Dominican Republic	U	U	U	U	
Ethiopia	U	U	U	U	
Ghana	U	U	U	U	
Indonesia	U	U	U	U	
Kazakhstan	198	15	183	63855	0.3%
Kenya	U	U	U	U	
Kyrgyzstan	U	U	U	U	
Mozambique	U	U	U	U	

Namibia	U	U	U	U	
Nigeria	U	U	U	U	
South Sudan	U	U	U	U	
Vietnam	U	U	U	U	
Zambia	U	U	U	U	
Zimbabwe	U	U	U	U	
Total:	198	15	183	63855	0.3%

C4. Treatment Success Rate of new smear-positive TB cases per WHO TB Report 2011

Year of Data	2009		
Country	# treated confirmed TB cases*	# of confirmed pulmonary TB cases registered	Treatment Success Rate (WHO)
Afghanistan	10,872	12,497	87%
Botswana	2,759	3,492	79%
Cambodia	16,970	17,863	95%
Djibouti	1,009	1,277	79%
Dominican Republic	2,075	2,441	85%
Ethiopia	37,638	44,807	84%
Ghana	7,182	8,255	87%
Indonesia	153,984	169,213	91%
Kazakhstan	3,320	5,355	62%
Kenya	32,166	37,402	86%
Kyrgyzstan	1,281	1,543	83%
Mozambique	16,642	19,579	85%
Namibia	3,997	4,702	85%
Nigeria	37,236	44,863	83%
South Sudan**	1,741	2,228	78%
Vietnam	47,276	51,387	92%
Zambia	11,825	12,995	91%
Zimbabwe	8,054	10,195	79%
Total:	396,026	450,094	88%

* Number of confirmed pulmonary TB cases registered that were cured plus the number that completed treatment

**S. Sudan data is self reported 2010 data (no WHO-reported data available)"

C5 and C6. Number of MDR cases diagnosed and put on treatment

Year of Data	2010		
Country	Number of all MDR and XDR cases diagnosed	Number of all MDR and XDR cases put on treatment	Percent of all MDR and XDR cases put on treatment
Afghanistan	31	15	48%
Botswana	106	92	87%
Cambodia	31	31	100%
Djibouti	8	8	100%
Dominican Republic	108	101	94%
Ethiopia	140	85	61%
Ghana	14	2	14%
Indonesia	182	142	78%
Kazakhstan	7,383	4,811	65%
Kenya	112	70	63%
Kyrgyzstan	1,471	1,471	100%
Mozambique	165	86	52%
Namibia	222	222	100%
Nigeria	U	23	

South Sudan	3	0	0%
Vietnam	202	101	50%
Zambia	U	U	
Zimbabwe	40	27	68%
Total:	10,218	7,287	71%

Country	1.1.1 Updated information available on the quality of services from patients' perspective		1.1.2 Cost to patients for TB diagnosis is measured	1.1.3 Patients' Charter is implemented	
	2010	2011	Year conducted	2010	2011
Afghanistan				0	0
Botswana				0	0
Cambodia				1	1
Djibouti				0	0
Dominican Republic			2009	1	1
Ethiopia				0	0
Ghana			2009	1	1
Indonesia				1	1
Kazakhstan				0	0
Kenya			2008	1	1
Kyrgyzstan				0	0
Mozambique				0	0
Namibia				1	1
Nigeria				0	0
South Sudan				1	1
Vietnam			2009	1	1
Zambia				0	0
Zimbabwe				1	1
Total #	0	0	5	Average	Average
Total %	0%	0%	28%	0.50	0.50

*Yes or No as of Sept. 30th; the information should be no older than three years old.

1.1.3:

0 = "The Charter" has not been officially adopted/translated by the NTP and MOH.

1 = "The Charter" has been officially adopted/translated by the NTP and MOH.

2 = NTP has piloted "The Charter" in selected facilities and/or geographic areas. An implementation plan including a timeline and budget with activities to address all 15 rights should be in the plan.

3 = NTP scaled-up the implementation of "The Charter" to additional facilities and or geographic areas with similar implementation plan mentioned above.

1.2.3 Prisons with DOTS						
Year of Data	2010			2011		
Country	Number of prisons providing DOTS	Total number of prisons	Percent of prisons providing DOTS	Number of prisons providing DOTS	Total number of prisons	Percent of prisons providing DOTS
Afghanistan	U	U		10	60	17%
Botswana	U	U		U	U	
Cambodia	13	25	52%	13	26	50%
Djibouti	1	1	100%	1	1	100%
Dominican Republic	26	28	93%	26	28	93%
Ethiopia	U	U		U	U	
Ghana	12	12	100%	12	12	100%
Indonesia	U	U		U	U	
Kazakhstan	6	6	100%	6	6	100%
Kenya	22	104	21%	22	104	21%
Kyrgyzstan	10	32	31%	10	32	31%
Mozambique	U	U		U	U	
Namibia	13	13	100%	13	13	100%
Nigeria	U	U		U	U	
South Sudan	0	0		0	0	
Vietnam	30	U		35	U	
Zambia	U	U		U	U	
Zimbabwe	14	14	100%	14	14	100%
Total	147	235	63%	162	296	55%

1.2.4 CB-DOTS program is implemented		
Country	2010	2011
Afghanistan	2	2
Botswana	2	2
Cambodia	3	3
Djibouti	1	1
Dominican Republic	0	0
Ethiopia	2	3
Ghana	3	3
Indonesia	3	3
Kazakhstan	3	3
Kenya	3	3
Kyrgyzstan	3	3
Mozambique	2	2
Namibia	3	3
Nigeria	3	3
South Sudan	2	2
Vietnam	3	3

Zambia	3	3
Zimbabwe	0	0
Average	2.28	2.33

Score based on the following:

0 = There is not a CB-DOTS program in the country and there are no plans prepared for this purpose.

1 = There is not a CB-DOTS program in the country but plans are ready for piloting.

2 = NTP has piloted CB-DOTS in selected geographic areas. An implementation plan including a timeline and budget with activities should be in the plan.

3 = NTP scaled-up the implementation of CB-DOTS to additional geographic areas with a similar implementation plan mentioned above.

2.1.1 A national strategic plan developed and implemented for providing the TB laboratory services needed for patient diagnosis and monitoring, and to support the NTP

Country	2010	2011
Afghanistan	0	0
Botswana	2	2
Cambodia	1	1
Djibouti	0	0
Dominican Republic	1	1
Ethiopia	2	2
Ghana	2	2
Indonesia	0	2
Kazakhstan	0	0
Kenya	0	1
Kyrgyzstan	0	0
Mozambique	0	0
Namibia	0	1
Nigeria	2	2
South Sudan	0	0
Vietnam	2	2
Zambia	0	2
Zimbabwe	0	0
Average	0.67	1

Score based on the following:

0 = Laboratory strategic plan is not available

1 = Laboratory strategic plan is ready but annual implementation plan and budget are not available for the current year.

2 = Laboratory annual implementation plan and budget are available for the current year

2.1.2 Laboratories in TB CARE I - supported areas with working internal and external quality assurance programs for tests that they provide including: Smear Microscopy						
Year of Data	2010			2011		
TB CARE geographic areas	Number of laboratories enrolled in EQA program	Number of all laboratories that perform smear	% microscopy laboratories enrolled in EQA program	Number of laboratories enrolled in EQA program	Number of all laboratories that perform smear	% microscopy laboratories enrolled in EQA program
Afghanistan	188	268	70.1	<i>data not yet available</i>	<i>data not yet available</i>	
Botswana	51	51	100	51	51	100
Cambodia	83	83	100	83	83	100
Djibouti	9	16	56.25	9	16	56.25
Dominican Republic	N/A	N/A		N/A	N/A	
Ethiopia	169	170	99.4	188	195	96.4
Ghana	176	254	69.3	216.0	254.0	85.0
Indonesia	<i>data not yet available</i>					
Kazakhstan	137	137	100.0	137	137	100.0
Kenya	1015	1335	76.0	1239	1549	80.0
Kyrgyzstan	<i>data not yet available</i>					
Mozambique	<i>data not available</i>	50		20	50	40.0
Namibia	31	31	100.0	31	31	100.0
Nigeria	<i>data not yet available</i>					
South Sudan	4	42	9.5	4	42	9.5
Vietnam	<i>data not yet available</i>	785		<i>data not yet available</i>	785	
Zambia	121	121	100.0	121	121	100.0
Zimbabwe (*)	65	65	100.0	67	67	100.0
TOTAL	1861	2305	80.7	2146.0	2546.0	84.3

2.1.2 Laboratories throughout the entire country with working internal and external quality assurance programs for tests that they provide including: Smear Microscopy						
Year of Data	2010			2011		
National level	Number of laboratories enrolled in EQA program	Number of all laboratories that perform smear	% microscopy laboratories enrolled in EQA program	Number of laboratories enrolled in EQA program	Number of all laboratories that perform smear	% microscopy laboratories enrolled in EQA program
Afghanistan	488	617	79.1	488	617	79.1
Botswana	51	51	100.0	51	51	100.0
Cambodia	209	209	100.0	211	211	100.0
Djibouti	9	16	56.3	9	16	56.3
Dominican Republic	185	192	96.4	203	203	100.0
Ethiopia	<i>data not yet available</i>	1876				
Ghana	176	254	69.3	216	254	85.0
Indonesia	<i>data not yet available</i>					
Kazakhstan	466	466	100.0	466	466	100.0
Kenya	1015	1335	76.0	1239	1549	80.0
Kyrgyzstan	<i>data not yet available</i>					
Mozambique	<i>data not available</i>	256		120	256	46.9
Namibia	31	31	100.0	31	31	100.0
Nigeria	<i>data not yet available</i>					
South Sudan	4	42	9.5	4	42	9.5
Vietnam	<i>data not yet available</i>	785			785	
Zambia	197	197	100.0	197	197	100.0
Zimbabwe (*)	100	115	87.0	129	129	100.0
TOTAL	2443	2908	84.0	2756	3149	87.5
(*) assuming the reported data are smear microscopy only; Bold = considered for analysis; data not yet available = under NTP review						

2.2.1 TA visits from a SRL through a formal link of memorandum of agreement		
Country	Confirmed link with SRL	TA visits occurred in APA1
Afghanistan		
Botswana	Y	
Cambodia	Y	Y
Djibouti	Y	
Dominican Republic		
Ethiopia		
Ghana	Y	Y
Indonesia	Y	Y
Kazakhstan	Y	
Kenya		
Kyrgyzstan	Y	
Mozambique		
Namibia		
Nigeria	Y	Y
South Sudan		
Vietnam	Y	Y
Zambia	Y	
Zimbabwe	Y	Y
# 'Yes'	11	6
% 'Yes'	61%	33%

2.2.2 SRLs that are meeting the TOR including conducting TA visits and providing proficiency testing panels			
	"Global 2010"	"Global 2011"	Additional Information
Number of SRLs	29	29	"This is a global indicator that does not need to be completed at the country level. Leave it blank if you are completing this form in county. Attach accreditation report, TA visit reports, register of number of proficiency testing panels being performed for each SRL."

2.3.2 Laboratories offering rapid tests for TB or DR-TB				
Year of Data	2010		2011	
Country	Number of laboratories routinely using GeneXpert	Number of laboratories routinely using HAIN MTBDRplus	Number of laboratories routinely using GeneXpert	Number of laboratories routinely using HAIN MTBDRplus
Afghanistan	0	0	0	0
Botswana	0	0	0	0
Cambodia	0	0	1	0
Djibouti	0	0	0	0
Dominican Republic	0	0	0	0
Ethiopia	U	2		2
Ghana	0	0	0	0
Indonesia	0	3	0	3
Kazakhstan	0	4	0	10
Kenya	0	1	0	1
Kyrgyzstan	0	0	1	1
Mozambique	0	0	2	0
Namibia	0	0	0	1
Nigeria	0	2	0	2
South Sudan	0	0	0	0
Vietnam	0	2	0	2
Zambia	0	0	0	0
Zimbabwe	0	0	6	0
Total	0	14	10	22

3.1.1 National TB-IC guidelines have been approved and disseminated in accordance with the WHO TB-IC policy		
Country	2010	2011
Afghanistan	Y	Y
Botswana	Y	Y
Cambodia		
Djibouti		
Dominican Republic		
Ethiopia	Y	Y
Ghana	Y	Y
Indonesia	Y	Y
Kazakhstan		
Kenya	Y	Y
Kyrgyzstan		
Mozambique		
Namibia	Y	Y
Nigeria	Y	Y
South Sudan		
Vietnam		Y
Zambia	Y	Y
Zimbabwe		
# 'Yes'	9	10

% 'Yes'	50%	56%
*Yes or No as of Sept. 30th.		

3.1.2 TB-IC measures included in the overall national IPC policy

Country	2010	2011
Afghanistan		
Botswana		
Cambodia	Y	Y
Djibouti		
Dominican Republic	Y	Y
Ethiopia	Y	Y
Ghana	Y	Y
Indonesia		
Kazakhstan	Y	Y
Kenya		
Kyrgyzstan		
Mozambique		
Namibia	Y	Y
Nigeria		
South Sudan		
Vietnam		
Zambia	Y	Y
Zimbabwe		
# 'Yes'	7	7
% 'Yes'	39%	39%
*Yes or No as of Sept. 30th.		

3.1.3 National workman's compensation policy is available

Country	2010	2011
Afghanistan		
Botswana	Y	Y
Cambodia		
Djibouti		
Dominican Republic	Y	Y
Ethiopia		
Ghana		
Indonesia		
Kazakhstan	Y	Y
Kenya		
Kyrgyzstan		
Mozambique		
Namibia	Y	Y
Nigeria		
South Sudan		
Vietnam		
Zambia	Y	Y
Zimbabwe	Y	Y
# 'Yes'	6	6

% 'Yes'	33%	33%
*Yes or No as of Sept. 30th.		

3.2.1 "TB-IC core package" strategy has been adapted and adopted

Country	2010	2011
Afghanistan	0	0
Botswana	0	0
Cambodia	0	0
Djibouti	0	0
Dominican Republic	0	0
Ethiopia	0	0
Ghana	1	1
Indonesia	0	0
Kazakhstan	0	0
Kenya	0	0
Kyrgyzstan	0	0
Mozambique	0	0
Namibia	0	0
Nigeria	0	0
South Sudan	0	0
Vietnam	0	0
Zambia	0	1
Zimbabwe	0	0
Average	0.06	0.11

"Score based on the following:

0 = Country has not adopted the "The package" and there are no plans for implementation

1 = Country has adopted the "The package" and there are plans for implementation but the implementation has not started

2 = "The package" has been piloted

3 = "The package" has been fully implemented at the national level "

3.4.1 A team of trained trainers in TB-IC is available

Country	2010	2011
Afghanistan		Y
Botswana		
Cambodia	Y	Y
Djibouti		
Dominican Republic		
Ethiopia	Y	Y
Ghana	Y	Y
Indonesia	Y	Y
Kazakhstan	Y	Y
Kenya	Y	Y
Kyrgyzstan		
Mozambique	Y	Y
Namibia	Y	Y
Nigeria	Y	Y
South Sudan		
Vietnam	Y	Y
Zambia	Y	Y
Zimbabwe	Y	Y

# 'Yes'	12	13
% 'Yes'	67%	72%

NTP must have a team of trained trainers who are competent in TB-IC and involved in a training program for HCWs which includes TB-IC training. The trainers may be MOH employees or working for collaborative partners in the country.

3.4.2 Mentored consultants involved in TA

	"Global 2011"	Additional Information
Number of all consultants	0	Mentored TB CARE consultants who have completed at least one consultancy in the last 12 months between October 2010-September 2011.
Number of male consultants	0	
Number of female consultants	0	

4.1.4 MDR TB patients who have completed the full course of MDR TB treatment regimen and have a negative sputum culture

Year of Data	2010		
Country	Number of MDR TB patients who completed a course of MDR treatment and who fit the WHO criteria for cure or completed treatment.	Total number of confirmed MDR patients who started treatment	% of MDR TB patients who completed a course of MDR treatment and who fit the WHO criteria for cure or completed treatment.
Afghanistan	N/A	N/A	
Botswana	2	114	0
Cambodia	9	13	1
Djibouti	N/A	8	
Dominican Republic	U	101	
Ethiopia	0	U	
Ghana	0	0	
Indonesia	N/A	142	
Kazakhstan	1,558	2,024	1
Kenya	27	216	0
Kyrgyzstan	6	441	0
Mozambique	N/A	N/A	
Namibia	N/A	214	
Nigeria	N/A	N/A	
South Sudan	N/A	N/A	
Vietnam	N/A	101	
Zambia	U	U	
Zimbabwe	1	1	1
Total	1,603	3,375	0

* U='unknown'; N/A='not applicable'

5.1.1 New HIV patients treated for latent TB infection during reporting period			
Year of Data	2010		
Country	Total number of newly-diagnosed HIV-positive clients in whom active TB has been excluded who start (given at least one dose) treatment of latent TB infection	Total number of newly-diagnosed HIV-positive clients	% of newly-diagnosed HIV-positive clients in whom active TB has been excluded who start (given at least one dose) treatment of latent TB infection
Afghanistan	U	636	
Botswana	U	U	
Cambodia	172	3,730	5%
Djibouti	N/A	N/A	
Dominican Republic	121	U	
Ethiopia	U	55,350	
Ghana	N/A	49,656	
Indonesia	N/A	N/A	
Kazakhstan	N/A	N/A	
Kenya	U	43,494	
Kyrgyzstan	87	640	14%
Mozambique	13,164	U	
Namibia	13,989	16,034	87%
Nigeria	798	N/A	
South Sudan	N/A	U	
Vietnam	N/A	N/A	
Zambia	U	160,000	
Zimbabwe	U	U	
Total	28,331	329,540	9%

5.2.2 TB patients with known HIV status			
Year of Data	2010		
Country	Total number of all TB patients registered who were tested for HIV (after giving consent) during their TB treatment	Total number of TB patients registered	% of all TB patients registered who were tested for HIV (after giving consent) during their TB treatment
Afghanistan	5150	28238	18%
Botswana	6098	7632	80%
Cambodia	32237	41628	77%
Djibouti	2163	4191	52%
Dominican Republic	U	4160	
Ethiopia	66,955	149,508	45%
Ghana	10,442	15,145	69%
Indonesia	2751	48520	6%
Kazakhstan	24248	24844	98%
Kenya	96930	106083	91%
Kyrgyzstan		9468	56%
Mozambique	40554	46174	88%
Namibia	9535	12625	76%
Nigeria	71844	90447	79%
South Sudan	3608	6424	56%
Vietnam	42356	98608	43%
Zambia	40,558	98608	41%
Zimbabwe	38047	47685	80%
Total	498784	839988	59%

5.3.1 and 5.3.2 Registered HIV-infected TB patients receiving ART or CPT during TB treatment					
Year of Data	2010				
Country	All registered HIV-positive TB patients who receive ART (are started on or continue previously initiated ART)	Number of registered HIV-positive TB patients who receive (given at least one dose) CPT during their TB treatment	All registered HIV-positive TB patients	% registered HIV-positive TB patients who receive ART (are started on or continue previously initiated ART)	% of registered HIV-positive TB patients who receive (given at least one dose) CPT during their TB treatment
Afghanistan	7	7	7	100%	100%
Botswana	1,776	3,154	3,990	45%	79%
Cambodia	944	1,383	2,113	45%	65%
Djibouti	27	0	248	11%	0%
Dominican Republic	U	U	547	U	U
Ethiopia	3,823	6,723	9,809	39%	69%
Ghana	491	2,114	2,451	20%	86%
Indonesia	894	693	2,584	35%	27%
Kazakhstan	83	230	333	25%	69%
Kenya	19,331	39,952	40,069	48%	100%
Kyrgyzstan	44	14	87	51%	16%
Mozambique	6,250	23,738	24,574	25%	97%
Namibia	2,206	4,806	5,227	42%	92%
Nigeria	5,902	10,415	17,736	33%	59%
South Sudan	125	398	447	28%	89%
Vietnam	2,376	3,497	5,578	43%	63%
Zambia	13,418	22,129	27,209	49%	81%
Zimbabwe	8,658	20,993	22,745	38%	92%
Total	66,355	140,246	165,754	40%	85%

Country	6.1.1 TB care and control strategic plan embedded within national health strategies, including quantifiable indicators and budget allocations		6.1.2 Government budget includes support for anti-TB drugs		6.1.3 CCM and/or other coordinating mechanisms include TB civil society members and TB patient groups	
	2010	2011	2010	2011	2010	2011
Afghanistan	Y	Y			Y	Y
Botswana	Y	Y	Y	Y	Y	Y
Cambodia	Y	Y			Y	Y
Djibouti	Y	Y				
Dominican Republic	Y	Y	Y	Y	Y	Y
Ethiopia	Y	Y				
Ghana	Y	Y	Y	Y	Y	Y
Indonesia	Y	Y	Y	Y	Y	Y
Kazakhstan	Y	Y	Y	Y	Y	Y
Kenya	Y	Y	Y	Y	Y	Y
Kyrgyzstan					Y	Y
Mozambique						
Namibia	Y	Y	Y	Y	Y	Y
Nigeria	Y	Y	Y	Y	Y	Y
South Sudan	Y	Y			Y	Y
Vietnam	Y	Y	Y	Y	Y	Y
Zambia	Y	Y	Y	Y	Y	Y
Zimbabwe	Y	Y	Y	Y	Y	Y
# 'Yes'	16	16	11	11	15	15
% 'Yes'	89%	89%	61%	61%	83%	83%
	There is evidence that TB care and control activities are mentioned in overall national strategies, planning documents and budget monitoring systems.		Annual government budget allocates funding for anti-TB drugs		Write "Yes" if civil society members and TB patient groups are officially registered as being members of the CCM and participate in the regular CCM meetings. There is an official list of members of the CCM and an attendance list for the regular meetings of the CCM.	

6.2.2 Status of HRD strategic plans implemented		
Country	2010	2011
Afghanistan	0	1
Botswana	1	1
Cambodia	1	1
Djibouti	0	0
Dominican Republic	1	1
Ethiopia	1	1
Ghana	0	0
Indonesia	2	2
Kazakhstan	0	0
Kenya	2	2
Kyrgyzstan	0	0
Mozambique	0	0
Namibia	N/A	N/A
Nigeria	2	2
South Sudan	1	1
Vietnam	2	2
Zambia	0	0
Zimbabwe	0	0
Average	0.76	0.82
<p>"Score based on the following: 0 = The country does not have an HRD strategic plan 1 = HRD strategic plan is ready but not yet officially incorporated in the country strategic plan 2 = NTP has developed an annual HRD implementation plan and budget for the current year 3 = NTP annual report for the current year includes a section demonstrating progress with the implementation of the HRD strategic plan"</p>		

6.2.3 People trained using TB CARE I funds in Year 1				
Year of Data	2011			
Country	Number of all people trained	Number of males trained	Number of females trained	% of trained people that are females
Afghanistan	40	30	10	25%
Botswana	78	43	35	45%
Cambodia	883	808	75	8%
Djibouti	0	0	0	
Dominican Republic	348	94	254	73%
Ethiopia	159	81	78	49%
Ghana	251	170	81	32%
Indonesia	144	53	91	63%
Kazakhstan	212	43	169	80%
Kenya	782	479	303	39%
Kyrgyzstan	2	0	2	100%
Mozambique	51	40	11	22%
Namibia	162	60	102	63%
Nigeria	206	182	24	12%
South Sudan	101	17	84	83%
Vietnam	138	64	74	54%
Zambia	58	32	26	45%
Zimbabwe	808	308	500	62%
Total:	4423	2504	1919	43%

7.1.1 An electronic recording and reporting system for routine surveillance exists at national and/or sub-national levels		
Year of Data	2010	2011
Country	Electronic TB treatment register is available at the NTP (Yes or No)	Electronic TB treatment register is available at the NTP (Yes or No)
Afghanistan		
Botswana	Y	Y
Cambodia		
Djibouti	Y	Y
Dominican Republic		
Ethiopia		
Ghana		
Indonesia	Y	Y
Kazakhstan	Y	Y
Kenya	Y	Y
Kyrgyzstan	Y	Y
Mozambique		
Namibia	Y	Y
Nigeria		
South Sudan		
Vietnam	Y	Y
Zambia		
Zimbabwe		
Total:	8	8

7.2.1 National M&E plan is up-to-date		
Country	2010	2011
Afghanistan	Y	Y
Botswana	N	N
Cambodia	N	N
Djibouti	Y	Y
Dominican Republic	N	N
Ethiopia	Y	Y
Ghana	N	Y
Indonesia	Y	Y
Kazakhstan	N	N
Kenya	Y	Y
Kyrgyzstan	N	N
Mozambique	N	N
Namibia	Y	Y
Nigeria	Y	Y
South Sudan	N	N
Vietnam	Y	Y
Zambia	Y	Y
Zimbabwe	N	N
# 'Yes'	9	10
% 'Yes'	50%	56%

National M&E plan is up-to-date based on global policy and M&E frameworks, and reflect the findings of the most recent systematic assessment of surveillance & programmatic data.

7.2.3 A data quality audit at central level has been conducted within the last 6 months		
Country	2010	2011
Afghanistan		
Botswana	Y	
Cambodia		
Djibouti		
Dominican Republic		
Ethiopia	Y	Y
Ghana		Y
Indonesia	Y	Y
Kazakhstan	Y	Y
Kenya		
Kyrgyzstan	Y	Y
Mozambique		
Namibia		
Nigeria		Y
South Sudan	Y	Y
Vietnam	Y	Y
Zambia	Y	Y
Zimbabwe	Y	Y
# 'Yes'	9	10
% 'Yes'	50%	56%

The routine data quality audit (RDQA) that has been conducted within the last 6 months at national (or lower) level is based on data sources from local level. All data are as of September 30th of reporting year.

7.3.1 OR studies completed & results incorporated into national policy & guidelines

Year of Data	2010		2011	
Country	Number of OR studies completed	Number of OR studies that led to changes in national policy	Number of OR studies completed	Number of OR studies that led to changes in national policy
Afghanistan	2	2	0	0
Botswana	0	0	U	U
Cambodia	1	N/A	2	N/A
Djibouti	0	0	0	0
Dominican Republic	0	0	0	0
Ethiopia	0	0	0	0
Ghana	2	2	0	0
Indonesia	0	0	0	0
Kazakhstan	0	0	0	0
Kenya	0	0	0	0
Kyrgyzstan	0	0	0	0
Mozambique	0	0	0	0
Namibia	0	0	0	0
Nigeria	0	0	0	0
South Sudan	0	0	0	0
Vietnam	0	0	0	0
Zambia	0	0	0	0
Zimbabwe	0	0	0	0
Total	5	4	2	0

* U='unknown'; N/A='not applicable'

8.1.1 Quarterly national stock information available

Year of Data	2010		2011	
Country	Stock information known for First Line Drugs (FLDs)	Stock information known for Second Line Drugs (SLDs)	Stock information known for First Line Drugs (FLDs)	Stock information known for Second Line Drugs (SLDs)
Afghanistan				Y
Botswana				
Cambodia				
Djibouti				
Dominican Republic	Y		Y	
Ethiopia			Y	
Ghana	Y		Y	
Indonesia	Y	Y		
Kazakhstan	Y	Y	Y	Y
Kenya			Y	Y
Kyrgyzstan				
Mozambique				
Namibia	Y	Y	Y	Y
Nigeria	Y		Y	
South Sudan				
Vietnam		Y		
Zambia				
Zimbabwe	Y			

# 'Yes'	7	4	7	4
% 'Yes'	39%	22%	39%	22%

8.1.2 Updated SOPs for selection, quantification, procurement and management of TB medicines available			
Country	2010	2011	
Afghanistan			
Botswana			
Cambodia			
Djibouti			
Dominican Republic	Y	Y	
Ethiopia	Y	Y	
Ghana	Y	Y	
Indonesia			
Kazakhstan			
Kenya	Y	Y	
Kyrgyzstan			
Mozambique			
Namibia			
Nigeria	Y	Y	
South Sudan			
Vietnam *(tentative 2011)	Y	Y	
Zambia	Y	Y	
Zimbabwe	Y	Y	
# 'Yes'	8	8	
% 'Yes'	44%	44%	
Completed and agreed SOPs for drug management available for NTP usage not older than five years.			

8.1.2 Updated SOPs for selection, quantification, procurement and management of TB medicines available			
Country	2010	2011	
Afghanistan			
Botswana			
Cambodia			
Djibouti			
Dominican Republic	Y	Y	
Ethiopia	Y	Y	
Ghana	Y	Y	
Indonesia			
Kazakhstan			
Kenya	Y	Y	
Kyrgyzstan			
Mozambique			
Namibia			
Nigeria	Y	Y	
South Sudan			
Vietnam *(tentative 2011)	Y	Y	
Zambia	Y	Y	
Zimbabwe	Y	Y	
# 'Yes'	8	8	
% 'Yes'	44%	44%	
Completed and agreed SOPs for drug management available for NTP usage not older than five years.			

