



**Challenge TB - BURMA
Year 1
Annual Report
October 1, 2014 – September 30, 2015
October 30, 2015**

Cover photo: Challenge TB Project conducting Laboratory Assessment in Taung Gyi TB Center, Southern Shan State together with Dr. Kathleen England, KNCV Tuberculosis Foundation.

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List of Abbreviations and Acronyms

3MDG	Three Millennium Development Goal Fund
ACF	Active Case Finding
APA1	Annual Planning Activity Year 1
APA2	Annual Planning Activity Year 2
ART	Antiretroviral Therapy
BHS	Basic Health Staff
CHAI	Clinton Health Access Initiative
CI	Contact Investigation
CTB	Challenge TB Project
DMR	Department of Medical Research
DR-TB	Drug Resistant Tuberculosis
DST	Drug Sensitivity Test
DSTB	Drug Sensitive Tuberculosis
EMMP	Environmental Mitigation and Monitoring Plan
ERR	Electronic Recording and Reporting
FAST	Find case Actively, Separate them Safety and Treat them effectively
GFATM	The Global Fund to Fight AIDS, Tuberculosis and Malaria
GLI	Global Laboratory Initiative
InSTEDD	Innovative Support to Emergencies Diseases and Disasters
IC	Infection Control
IRC	International Rescue Committee
ICF	Intensified Case Finding
IHD	International Health Department (Newly named: International Relations Dept.)
IPT	Isoniazid Preventive Therapy
KAP	Knowledge, Attitude and Practice Survey
KNCV	KNCV Tuberculosis Foundation
LMTBC	Lower Myanmar TB Center
LPA	Line Probe Assay
LTO	Laboratory Technical Officer
MDR TB	Multi-Drug Resistant TB
MMA	Myanmar Medical Association
MHAA	Myanmar Health Assistant Association
MOH	Ministry of Health
Open MRS	Open Medical Registration System
MSF	Medecins San Frontieres
NRL	National Reference Laboratory
NSA	National Situational Analysis
NSP	National Strategic Plan
NTP	National Tuberculosis Program
NTRL	National TB Reference Laboratory
PGK	Pyi Gyi Khin
PLE	Project for Local Empowerment
PMDT	Programmatic Management of Drug Resistant TB
PPM	Public Private Mix
R&R	Recording and Reporting
SCF	Save the Children Federation
TB IC	TB Infection Control
The Union	The Union against Tuberculosis and Lung Disease
TMOs	Township Medical Officer
UMTBC	Upper Myanmar TB Center
UNOPS	United Nations Office for Project Services
USAID	United States Agency for International Development

Xpert
WHO

GeneXpert MTB/RIF
World Health Organization

1. Executive Summary

The Challenge TB (CTB) Project in Burma is led by FHI360 and includes substantial technical support from KNCV. The approved budget for the first year of activities (APA1) is 2.5 million USD; the approved work plan spans six months of two United States Government (USG) fiscal years (FY-15 and FY16). Despite USAID approval for the project to start from April 2015, the formal Burmese government approval of the proposed work plan was only received from the International Health Department (IHD) on August 30th, 2015. Some selected technical assistance was allowed prior to that approval but the scope of activities the team could engage in was limited until the formal IHD approval was received. Even with IHD approval of APA1, external technical assistance still required approval on a case-by-case basis, slowing down implementation. The provision of external technical assistance is currently approved on a case by case basis and in consultation with the NTP Director and Director of Disease Control; the Challenge TB Team is adapting some activities in accordance to requests of the national partners. Implementation was also affected by the flooding that occurred throughout the country in July and August.

Despite the project still being in its earliest stage of implementation since IHD approval was received and subsequent consultations with MoH partners about activities that have started and activities that have been initiated several key outcomes have been achieved:

- Working on the National Strategic Plan Development is not only well received by the MoH but has been held up as an example by the MoH for other disease programs (HIV and Malaria) to accelerate their progress. The USAID CTB Project has been the main driving force for this activity which has been led with the support of the project consultant, Dr. Christy Hanson. Dr. Hanson has conducted two project visits and worked from a distance, keeping constant contact with key stakeholders to ensure the NSP process keeps moving.
- Partnership with IRC allowed CTB Project staff to provide training alongside IRC (Project for Local Empowerment -PLE Project) in an Ethnic area of Kayin State to establish in initial contacts with groups on Mon and Kayin State that are working to provide tuberculosis (TB) services in areas where the NTP does not have access to TB services and where Ethnic authorities are working to build capacity of their local health staff. Such partnership is not only a first step toward improving access and quality of services to areas that currently do not have access to services but in this case may help link those services to the national TB program services.
- Challenge TB staff have supported multiple trainings for community volunteers at the request to local partners and existing projects; this work is empowering volunteers to provide stronger support to MDR-TB patients and their families.
- TB Infection Control (IC) and National Laboratory Assessment visits have been conducted and key recommendations shared with the NTP. The recommendation have been well received and have given direction to future Challenge TB work in that national partners have provided their agreement for follow-on activities to move ahead.

2. Introduction

The Challenge TB (CTB) Burma project team for APA1 consists of the Chief of Party / Program Director, four technical staff and includes support from the FHI360 Country Director who helped support strategic communications with national partners and strategic planning of activities. The approved budget for the first year of activities was ~2.5 million USD. Country level activities are led by FHI360 in close collaboration and with the technical support of KNCV Tuberculosis Foundation (KNCV).

The main activity areas defined for the project to focus on until 2019 include: Reaching the hard to reach, strengthening laboratory diagnostics, and strengthening NTP in analysis of and strategic planning for novel intervention strategies. While many of these activities are focused on the national level, there are activities related to "reaching the hard to reach" that include ethnic areas and PPM (Public and Private Hospitals) where the extent of geographic coverage is still being defined. The first year plans included many initial assessments for the various intervention areas in which the project will support the NTP; these assessments are helping define future project plans and are incorporated into the APA2 work plan.

Challenge TB Burma intervention areas for the first year of the project include the following: Enabling Environment, Comprehensive - High Quality Diagnostics, Patient Centered Care and Treatment, Prevention, Targeted Screening for active TB, Infection Control (IC), Political Commitment and Leadership, Comprehensive Partnerships and Community involvement, Drug and Commodity management, and Quality Data-Surveillance and Monitoring and Evaluation (M&E).

It is important to note as referenced in the executive summary that the APA1 work plan included only activities for the last six months of the USAID fiscal year thus many of the planned activities for APA1 overlap into the next USAID fiscal year. As the IHD approval for the project was only received on August 30th, it should be clear that this annual report does not cover 12 months of activities.

3. Country Achievements by Objective/Sub-Objective

Objective 1. Improved Access

Sub-objective 1. Enabling environment

Challenge TB focuses on areas of PPM, ethnic and border areas where the government is unable to provide strong health care. In APA1, CTB conducted a PPM National Situational Analysis (NSA) collaborating with NTP, implementing partners and private sectors. The NSA concluded at the end of September and the full NSA report is due in October.

Table 1: Achievement on outcome Indicators for sub objective 1 – Enabling environment

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target	Result
				Y1	Y1
1.1.1	#/% of notified TB cases, all forms, contributed by non-NTP providers (i.e. private/non-governmental facilities)		National (all): 141,957 Non-NTP 31,796 / 22.4.1% (2014)	National (All; calendar year 2015): 152,475, (Note: The NTP does not set targets for	National: Not yet Available (calendar year 2015)

				non-NTP contribution to case notification.	
1.1.4	# of providers (stratified by private, public, military, prison, etc.) certified to provide TB services		N/A	N/A	N/A
1.2.2	% of (population) with correct knowledge and positive attitudes towards people affected by TB				KAP not yet conducted

Objective 2:

Sub-objective 2. Comprehensive, high quality diagnostics

The main laboratory activity conducted in the first year of the project is a national laboratory assessment. The assessment aims to include the national level laboratories and the peripheral level laboratories of the network. The assessment was supposed to be conducted in two parts but the NTP asked that the first visit be delayed by two months. As a result of this delay the first visit of the senior laboratory specialist focused primarily on the National Reference Laboratory (NRL) level laboratories in upper and lower Burma; some work on the assessment of the peripheral laboratory network is ongoing with the support of the project Laboratory Technical Officer.

The Laboratory Technical Officer (LTO) joined the project in August 2015. Laboratory technical advisor (Dr. Kathleen England) from KNCV conducted the laboratory assessment from 16th August – 15th September 2015. This period was also utilized to provide orientation and training to the LTO FHI360 and support her in establishing links with the National TB Reference Laboratory (NTRL) Yangon. Throughout the advisor's visit, the LTO participated in assessing the current systems established within the TB laboratory network and to develop an understanding of the current landscape of GeneXpert MTB/RIF (Xpert) and program plans for scale-up and specimen by mapping the GeneXpert Sites, Fluorescence Microscopy, ZN microscopy centers and the townships which do not have health facilities (see Fig 1). The existing systems for transporting specimens are under review in order to work with the program to find more efficient alternatives for transporting diagnostic samples. At the moment, the Union against Tuberculosis and Lung Disease (the Union) takes the responsibility of specimen referral in Mandalay area (see Fig 2).

In addition to the assessment, the CTB Team agreed with 3MDG supported by UNOPS to provide technical review of building layout, work flow, and other related areas of their ongoing construction and rehabilitation projects of TB laboratories and in-patient facilities.

Table 2: Achievement on outcome Indicators for sub objective 2 – comprehensive, high quality diagnostics

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target	Result
				Y1	Y1
2.1.1.	# of laboratories performing microscopy (stratified by LED florescence, Ziehl-Nihlsen)		514 Total 421 / 82% Public 93 - 18% private Data: May 2015	N/A	N/A

			Conducting ZN microscopy 149 Laboratories conduct LED microscopy (Township Level)		
2.1.2.	A current TB lab strategic plan with complete rational mapping of diagnostic services at each level exists (Y/N)	0= Operational plan not available 1= Operational plan available 2= Operational plan available and follows standard technical and management principles of a quality work plan required for implementing the necessary interventions to build and strengthen the existing TB laboratory network	2 (2014)	2	2
2.3.1.	% of confirmed TB cases who undergo DST and receive their results, disaggregated by new and previously treated cases		National: 26,240 (2014)	16% 2015	N/A
2.3.2.	Population per culture/DST laboratory		51 mill/2 labs = 1/25.5 mill	N/A	N/A
2.4.2.	#/% of Xpert machines that are functional in country (stratified by Challenge TB, other)		39 (2014)	48	N/A
2.4.7.	% of labs using WHO approved rapid diagnostic tools (disaggregated by type: Xpert MTB/RIF, LPA, etc)		N/A	Xpert 92% 44 / 48 LPA 100% (2/2) (2014)	N/A
2.6.4.	# of specimens transported for TB diagnostic services		N/A To NTRL Solid: 599 Liquid: 3,300 LPA: 883 (2014)	N/A	N/A
2.7.1.	#/% of laboratories implementing national biosafety standards (stratified by laboratories performing culture, DST and Xpert)		(To be assessed in Q2 APA2 when assessment (2 nd half) is finalized.	N/A	N/A

Figure 1: Mapping of the GeneXpert Sites, Fluorescence Microscopy, ZN microscopy centers and the townships which do not have health facilities

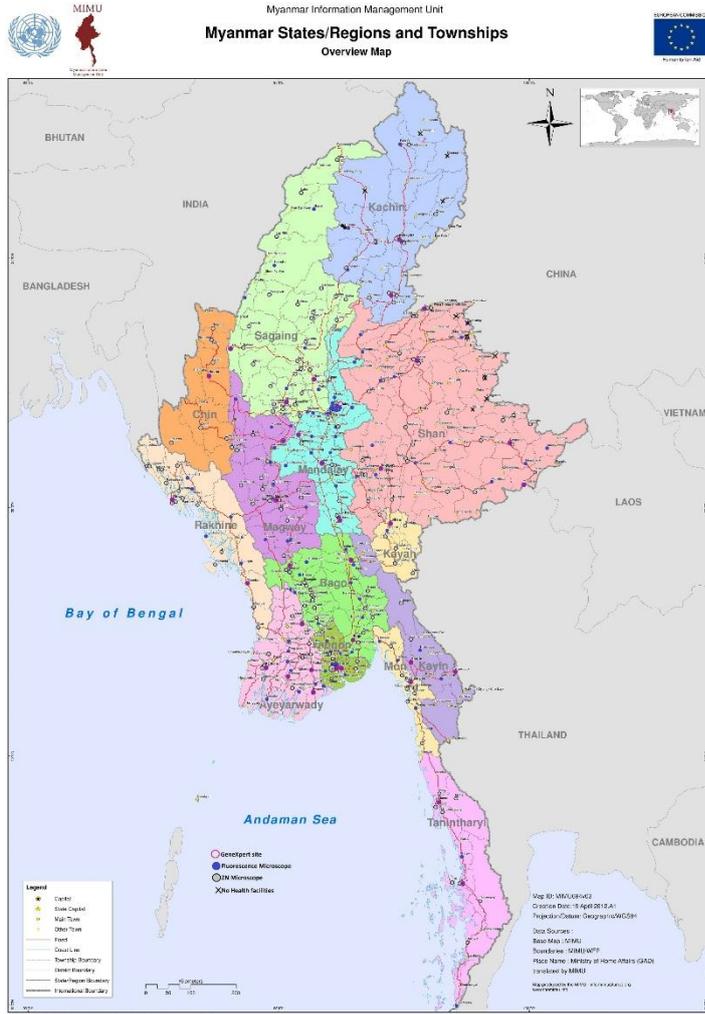
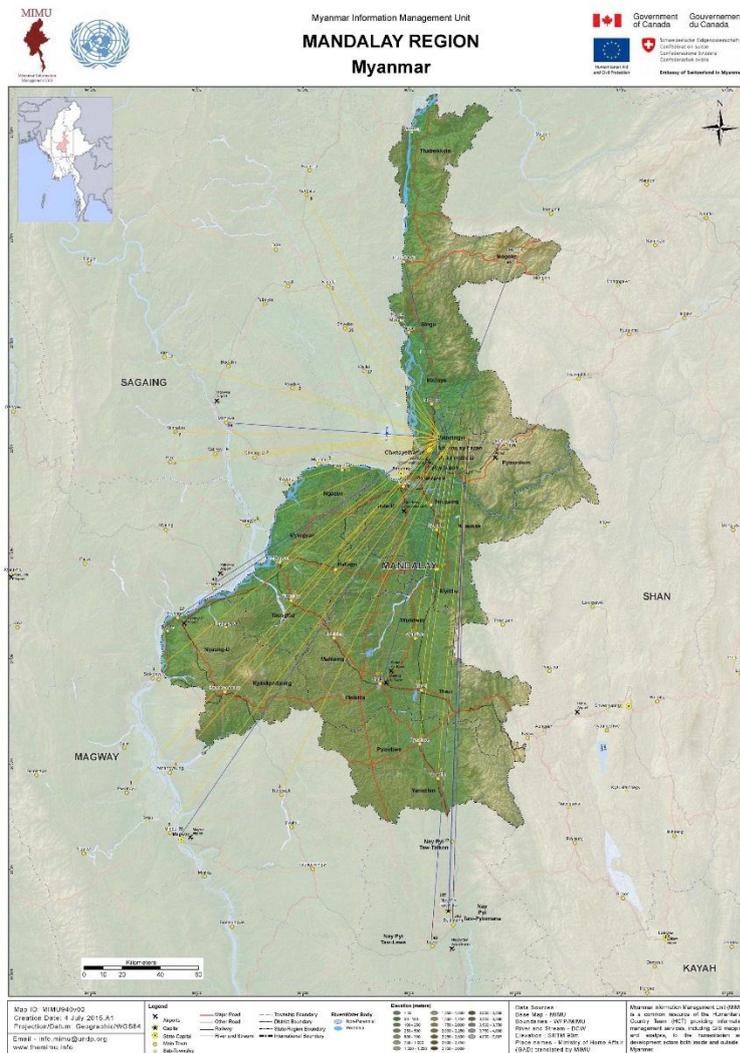


Figure 2: Mapping of the townships/cities which sent the specimens to the Upper Myanmar TB Center (UMTBC) in 2014

The numbers of specimens sent were written next to the line. The yellow lines indicate the townships/cities that sent less than 30 specimens to UMTBC. The blue lines indicate the townships/cities which sent more than 30 specimens to UMTBC (Zoom into the map to see details).



Sub-objective 3. Patient-centered care and treatment

In collaboration with IRC PLE project, Challenge TB project staff joined the training in Mon/ Kayin State and provided the TB training in the medical refresher training for medical personnel from Mon National Health Committee. The trainees are responsible for providing primary health care in 4 townships in Mon and Kayin States and Thanintharyi Region.

This training in support of the IRC PLE project clearly illustrates the complexity of working in ethnic areas and the types of challenges that will be faced when working in these areas. This training took place in Kawt Bein village in Kawtkareik Township. The Township is geographically in Kayin State but the Kawt Bein village is under the control and administration of Mon National Party as is most of the western part of the township. While some national health services (e.g. immunization) are provided by BHS in these areas there are significant gaps in the services; TB diagnosis and treatment is not available. Presumed TB cases are referred for diagnosis outside of the township and those diagnosed may receive diagnosis and treatment in Mae Sot, Thailand or in Mawlamyine, Mon State, Burma. The training that was conducted will help local ethnic health staff to be better

informed about TB and help to improve referral for diagnosis. Overtime the CTB team hopes to build relations with the key stakeholders to help increase access to services in these areas.

Challenge TB staff have supported multiple trainings for community volunteers of the partners which are providing community based MDR TB care in 43 townships in Yangon region. This is the scale up of Patient centered Community based MDR TB care Model, developed by USAID funded CAP TB project by FHI 360. By the request of the implementing partners and NTP (Yangon Region), CTB provided the technical support to the training.

CTB team also provided two rounds of training to 70 basic health staff of MOH (nurses, health assistants) regarding counselling, infection control and DOTs.

Table 3: Achievement on outcome Indicators for sub objective 3 – Patient-centered care and treatment

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target	Result
				Y1	Y1
3.2.7	Treatment success rate for MDR-TB patients on treatment		79% (2012)	80%	NA
3.2.1 2	% of HIV-positive registered TB patients given or continued on anti-retroviral therapy during TB treatment		34% (2014)	N/A	N/A
3.2.1 4	% of health facilities with integrated or collaborative TB and HIV services		N/A	N/A	N/A

Objective 2. Prevention

Sub-objective 4. Targeted screening for active TB

Planned visits to assess active case finding and to follow-up on Childhood TB issues were delayed at the request of the NTP. In regards to active case finding, the national counterparts did not agree with their initial plans to conduct an assessment together with the Department of Medical Research (DMR) which was intended to build DMR capacity while assessing the countries ACF activities. Subsequent discussions have resulted in the MoH expressing an interest to conduct an ACF assessment that will be more in-depth than initially planned and to be conducted more closely with the NTP than DMR.

In the meantime, the CTB team shared available data with the epidemiologist scheduled to work on the ACF assessment. The epidemiologist is using this data to populate the priority risk assessment tool prior to when a visit may be approved.

The MoH asked that the expert visit on Childhood TB be delayed. Due to other obligations this activity is now delayed until January/February.

Key Results

Table 4: Achievement on outcome Indicators for sub objective 4 – targeted screening for active TB

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target	Result
				Y1	OY01
4.1.2	#/% of children (under the age of five) who are contacts of bacteriologically-confirmed TB cases that are screened for TB		N/A	N/A	N/A To be collected in APA 2
4.2.1	Status of active case finding	0=no ACF policies or practices implemented; 1=policies or laws supporting ACF have been enacted; 2=ACF policy has been piloted/introduced in limited settings; 3=ACF policy implemented nationally	2 (2014)	2	2
4.2.3	% of confirmed TB patients by case finding approach (CI, ACF, ICF), by key population and location (ex, slum dwellers, prisoners) (Service cascade)		NA	N/A	N/A

Sub-objective 5. Infection control

Under this intervention area, CTB assessed compliance with quality TB-IC measures in health care, community and congregate settings. In August 2015, Dr. Max Meis from KNCV visited to country to assist to NTP. Dr. Meis and the CTB team conducted an analysis of current infection control practices including review of the current infection control guidelines and implementation of the guidelines in health care sites and the community. The full mission report from this visit will be complete in October.

An extensive list of recommendations and key findings were provided to the CTB team and national partners as well as input into the ongoing NSP development. The Challenge TB Team used these recommendations to guide planning for APA2 and the development of the long term strategy of the project.

Key Results

Table 5: Achievement on outcome Indicators for sub objective 5 – Infection Control

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target	Result
				Y1	Y1
5.1.1.	Status of TB IC implementation in health facilities	0=no TB IC policy/plan and no organized TB IC activities; 1=national TB IC guidelines have been approved and disseminated in accordance with WHO policy; 2=TB IC being implemented in pilot or limited health facilities; 3=TB IC implemented nationally and/or national certification program implemented	2 (2014)	2	2
5.1.2	#/% of health facilities implementing TB IC measures with Challenge TB support (stratified by TB and PMDT services)		N/A	N/A	N/A Planned to be implemented in APA 2
5.1.3	#/% of TB IC (i.e. FAST) certified health facilities		N/A	N/A	N/A Planned to be implemented in APA 2

Objective 3. Strengthened TB Platforms

Sub-objective 7. Political commitment and leadership

The main activity area that the NTP and MoH allowed the project to work on was the development of the National Strategic Plan (NSP). The new NSP will cover 2016-2020. The main narrative sections have been drafted and operational plans started. The NTP has defined focal points for all technical sections of the plan; these focal points are currently busy working on the final drafts of the various sections of the NSP. These include technical sections on:

- 1) Core DOTS
- 2) MDR-TB
- 3) Pediatric TB
- 4) Concomitant Disease
- 5) Diagnostics
- 6) Prevention ACF and IPT
- 7) Human Resources
- 8) Hard to Reach
- 9) Community Engagement
- 10) Communication and Advocacy
- 11) Monitoring Evaluation and Operational Research
- 12) Commodities

13) PPM

The work on the NSP has been used by the MoH as an example to accelerate the work of the malaria and HIV programs on the development of their NSPs. The CTB field team has been working to support the alignment of the TB NSP with the HIV NSP which is currently starting its first draft.

Table 6: Achievement on outcome Indicators for sub objective 7 – political commitment and leadership

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target	Result
				Y1	Y1
7.1.2	Status of NSP development		Current plan will expire this year	Initiate New NSP 2016-2020	Process is ongoing. NSP approval expected in April 2016.

Sub-objective 8. Comprehensive partnerships and informed community involvement

(See page 18 on Global Fund Collaboration)

Table 7: Achievement on outcome Indicators for sub objective 8 – comprehensive partnerships and informed community involvement

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target	Result
				Y1	Y1
8.1.3	Status of National Stop TB Partnerships	0= no National Stop TB Partnership exists 1= National Stop TB Partnership established, and has adequate organizational structure; and a secretariat is in place that plays a facilitating role, and signed a common partnering agreement with all partners; but does not have detailed charter/plan, and does not meet regularly/produce deliverables; 2= National Stop TB Partnership established, has	0 (2014)	0	0

		adequate organizational structure and in a participatory way has developed detailed charter/plan, but does not meet regularly and does not produce deliverables; 3= National Stop TB Partnership established, has adequate organizational structure, has developed detailed charter/plan, meets regularly and critical deliverables are produced			
8.2.1	Global Fund grant rating	A1 Exceeds expectations A Good performance A2 Meets expectations B1 Adequate B2 Inadequate but potential demonstrated C Unacceptable	A1 (2014)	A1	A1

Sub-objective 9. Drug and commodity management systems

Under this intervention area, CTB planned to support NTP efforts to introduce new drugs and regimens in the country. Prior to the start of the project, the MOH cancelled all plans to introduce new drugs and regimens. In recent months, the End TB Project that is funded by UNITAID and will be implemented by MSF has received initial approval.

In August 2015, Dr. Agnes Gebhart from KNCV conducted an initial country visit to assess the MDR-TB situation and atmosphere for initiating discussion about the new TB drugs. During her visit the CTB team met with NTP officials and other INGOs implementing PMDT and planning introduction of new drugs to the country.

The mission reports from this visit are not yet available but the NTP was pleased with the input provided by the consultant and tentative agreements were made with the NTP and MSF for CTB to provide technical support to both the NTP and MSF as they move forward introducing the new TB drugs.

The agreements included that the Challenge TB Project will review and provide advice on treatment protocols and plans for the introduction of these new drugs as well as reviewing the research protocols. In addition, the NTP expressed a strong interest in having the consultant conduct a workshop on PMDT and pharmaco-vigilance. The NTP has a specific interest in pharmaco-vigilance. This workshop will allow the project to raise the issue of new TB drugs and

regimens with key stakeholders that have slowed the introduction of the drugs and regimens in the country.

Key Results

Table 8: Achievement on outcome Indicators for sub objective 9 – drug and commodity management systems

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target	Result
				Y1	Y1
9.2.1.	# of new and ancillary drug regimens that have become available in country since the start of Challenge TB		0	Plan for introduction of new drugs and regimens available	Started discussion with NTP for introducing of new drugs to the country

Sub-objective 10. Quality data, surveillance and M&E

Activities under sub-objective 10 are pending approval from the government. Initial plans to conduct the trend analysis in coordination with the ACF work were delayed at the request of the National Partners. These plans have been included in the APA2 work plan but it is not yet clear if the National Partners will approve that work in the coming year.

Table 8. Achievement on outcome Indicators for sub objective 10 – Quality data, surveillance and M&E

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target	Result
				Y1	Y1
10.1.4	Status of electronic recording and reporting system	0=R&R system is entirely paper-based; 1=electronic reporting to national level, but not patient/case-based or real time; 2= patient/case-based ERR system implemented in pilot or select sites (TB or MDR-TB); 3=a patient/case-based, real-time ERR system functions at national and subnational levels for both TB and MDR-TB; 4= a patient/case-based, real-time ERR system is functional at national and subnational levels for both TB and MDR-TB completely and meets WHO standard for TB surveillance data quality	0 (2014)	0	0

4. Challenge TB Support to Global Fund Implementation

Current Global Fund TB Grants

Table 10:

Name of grant, year signed, & principal recipient(s) <i>(e.g., Tuberculosis NFM – 2014 -MoH)</i>	Average Rating*	Current Rating	Total Approved Amount (to Date)	Total Disbursed to Date	Total expensed <i>(if available)</i> <i>(June 2014)</i>
UNOPS	A2	A1	US\$ 105,255,392	US\$ 65,068,680	US\$ 31,339,577
SCF	A1	A1	US\$ 22,084,891	US\$ 13,012,465	US\$ 9,077,933
GFATM TB (2014 total)	A2	-	US\$ 130 m	US\$ 80.7 m	N/A

* Since January 2010

In-country Global Fund status - key updates, current conditions, challenges and bottlenecks

Challenge TB involvement in GF support/implementation, any actions taken during Year 1

There has been no major involvement of the project with the Global Fund Projects to date. The Program Director has held meetings with UNAIDS to ensure both agencies coordinate support on the joint concept note. The due date for the concept note is June 2016.

5. Operations Research

CTB did not conduct OR in APA1.

6. Key Challenges during Implementation and Actions to Overcome Them

Several challenges faced the project including bureaucratic procedures to approve the project, natural disasters that necessarily caused the MoH to put all staff attention on addressing the disaster, communication issues between the partners, and systematic issues which create problems in accessing some TB data.

After receiving initial approval from government partners on the CTB proposed work plan in May, formal approval from the International Health Department (IHD) was not received until August 30th, 2015. Importantly, even once this approval was received, it became clear that there were further hurdles to overcome before the previously agreed upon activities could be implemented.

To address this issue the CTB management (Country Manager and Program Director) organized several trips to meet with the NTP and Director of Disease control together to discuss and agree upon activities to be conducted. This process is not easy; agreed upon meetings may not take place as planned but those meetings are necessary to ensure approvals for the activities. Over the course of the project start-up it has become clear that at least initially, approvals need to include both the NTP manager and Director of Disease Control at the same time. It is expected that the process will become easier as the track record of Challenge TB becomes established.

In addition to the bureaucratic procedures, Burma faced severe flooding countrywide during the monsoon season. As a result of the flooding, MoH had to allocate all human resources to address the disaster. This situation resulted in the delay of activities as for that period of time, the MoH had other priorities to address than bringing in the technical assistance that had been planned by the project.

One more practical challenge facing the project is that it is difficult to access some national data. This is in part because there is no existing ERR system and the way data is currently collected does not allow for disaggregation of data that might be useful to guide decision making. In order to help address this situation the project will engage in communications with agencies (e.g. CHAI and InSTEDD) to see if there are opportunities for the project to help the partners and the NTP/MOH to create a proper database electronic recording and reporting system. CHAI is initiating the ERR system for MDR-TB patients using open MRS and also for the HIV system. InSTEDD plans to conduct a "Hack-a Thon" to demonstrate other open source solutions that are available which they potentially could support.

7. Lessons Learnt/ Next Steps

Implementation of the Challenge TB Project is projected to keep the same technical direction for the second year of the project but has built new follow-on activities which logically flow out of the findings of the assessments that have been conducted and the planned activities. A National level focus of activities will be maintained, while specific geographic areas for numerous activities are still being defined. Activities such as supporting PMDT decentralization are expected to continue to focus on Yangon and Mandalay.

As the project is still in the earliest phases of implementing activities the number of lessons learned are not substantial but those identified are of paramount importance. The biggest lesson learned to date relates to organizing communications with both the NTP Director (Dr. Si Thu Aung) and the Director of Disease Control (Dr. Thandar Lwin – Former NTP Director).

The project has learned that communication necessarily must involve both parties as the only way to have activities approved. To address this issue joint meetings and joint communications have become the rule as well as a strict following of formal protocols for communications with both parties.

The high level of communications will need to be maintained not only in regards to gaining approval to conduct activities, site visits, and to meet partners but also in regards to the design of the planned activities. Review of the APA1 work plan have revealed numerous areas where strategic discussions are still needed with our national counterparts (e.g. For PPM activities, it is clear that the MoH has ideas where they would like to support the public-public mix but that such a strategy for private hospitals is not in place, while PPM expansion in private hospitals in an important issue to address).

Discussions about TB/HIV under the intervention area: Patient Centered Care and Treatment have also illustrated the necessity for a constant ongoing dialogue with the partners. These discussions revealed that the MoH does not agree to focus on expanding ART in TB Centers as the APA1 work plan envisioned; instead they noted this as not equitable and prefer a forum to identify the most suitable locations for such services to be provided to patients. In many townships they noted that there are no vertical TB and HIV structure in place but rather TMOs who must be included in the discussion and who can best determine where such services will be delivered. There are numerous such examples but the key lessons is that **communication** will need to be sustained and strategic.

One positive lesson has been that once an activity is established and the NTP and Disease Director like the results, in such cases accelerated approval of activities and external assistance will be possible. The NSP process is an excellent example of such a situation.

Annex I: Year 1 Results on Mandatory Indicators

MANDATORY Indicators				
<i>Please provide data for the following mandatory indicators:</i>				
2.1.2 A current national TB laboratory operational plan exists and is used to prioritize, plan and implement interventions.	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Score as of September 30, 2015	2	N/A	Moderate	CTB conducted the first portion of the National Laboratory System assessment and plans to support the revision of the countries diagnostic expansion plan.
2.2.6 Number and percent of TB reference laboratories (national and intermediate) within the country implementing a TB-specific quality improvement program i.e. Laboratory Quality Management System	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Number and percent as of September 30, 2015	0% (0/3)	N/A	Limited	
2.2.7. Number of GLI-approved TB microscopy network standards met	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Number as of September 30, 2015	4	N/A	Limited	
2.3.1. Percent of bacteriologically confirmed TB cases who are tested for drug resistance with a recorded result.	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Percent as of September 30, 2015	U	N/A	None	
3.1.1. Number and percent of cases notified by setting (i.e. private sector, pharmacies, prisons, etc.) and/or population (i.e. gender, children, miners, urban slums, etc.) and/or case finding approach	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments

Number and percent as of September 30, 2015	National: 141,957 Non NTP (31,796/ 22.4%)	N/A	None	The data is only available for gender, age and public/ private
3.1.4. # of MDR-TB cases detected	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Number as of September 30, 2015	10,210	N/A		
3.2.1. Number and percent of TB cases successfully treated (all forms) by setting (i.e. private sector, pharmacies, prisons, etc.) and/or by population (i.e. gender, children,	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Number and percent as of September 30, 2015	Getting from WHO	U	None	Currently, such disaggregated data is not available in country. When a comprehensive ERR is implemented this should be possible.
3.2.4. Number of MDR-TB cases initiating second-line treatment	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Number as of September 30, 2015	1,537	1,537	None	
3.2.7. Number and percent of MDR-TB cases successfully treated	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Number and percent as of September 30, 2015	Getting from WHO	Getting from WHO	None	CAP-TB has done preliminary research on the different cohorts the project supported and those supported using the CAP-TB model. This is being reported separately to USAID.
5.2.3. Number and % of health care workers diagnosed with TB during reporting period	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Number and percent as of September 30, 2015	U	U	None	CTB plans a survey for APA2 to try to find such information.

6.1.11 Number of children under the age of 5 years who initiate IPT	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Number as of September 30, 2015	U	U	None	Included in APA2 if approved.
7.2.3 % of activity budget covered by private sector cost share, by specific activity	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Percent as of September 30, 2015	N/A	N/A	None	N/A
8.1.3. Status of National Stop TB Partnership	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Score as of September 30, 2015	0	0	None	National Stop TB Partnerships are envisioned in the draft NSP and CTB plans to support these during APA2.
8.1.4. % of local partners' operating budget covered by diverse non-USG funding sources	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Percent as of September 30, 2015	N/A	N/A	None	To date CTB does not finance local partners.
8.2.1. Global Fund grant rating	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Status as of September 30, 2015	A1	N/A	None	Both PR's have an A1 rating
9.1.1. Number of stock outs of anti-TB drugs, by type (first and second line) and level (ex, national, provincial, district)	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Number as of September 30, 2015	U	N/A	None	
10.1.4. Status of electronic recording and reporting system	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments

Status as of September 30, 2015	0	N/A	None	CTB will communicate with CHAI and the MoH to see if any future support may be needed.
10.2.1. Standards and benchmarks to certify surveillance systems and vital registration for direct measurement of TB burden have been implemented	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Status as of September 30, 2015	Yes	No	None	Currently CHAI is involved in introducing open MRS for MDR-TB patients. This is being done with 3MGD funding.
10.2.6 % of operations research project funding provided to local partner (provide % for each OR project)	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Percent as of September 30, 2015	N/A	N/A	None	MoH has requested to temporarily postpone any planned OR in APA1.
10.2.7 Operational research findings are used to change policy or practices (ex, change guidelines or implementation approach)	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Status as of September 30, 2015	N/A	N/A	None	N/A
11.1.3. Number of healthcare workers trained, by gender and technical area	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments
Number as of September 30, 2015	N/A	497 (Supporting partner training)	Limited	397 community volunteers under Training on Patient centered Community based MDR TB care project (MMA, MHAA and PGK) 26 medical personnel under Medical Refresher Training under project PLE of IRC 74 BHS under MDR TB management and counselling
11.1.5. % of USAID TB funding directed to local partners	National APA 1	CTB APA 1	CTB APA 1 investment	Additional Information/Comments

Percent as of September 30, 2015	N/A	N/A	None	Limited funding for local partners in envisioned for APA2
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Annex II: Status of EMMP activities

The EMMP has been submitted to the local USAID mission, although approval has not yet been received.

Year 1 Mitigation Measures	Status of Mitigation Measures	Outstanding issues to address in Year 2	Additional Remarks
No mitigation measures required	N/A	N/A	

