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TB CARE I

TB CARE I – Mozambique

Year 2

Annual Report

April 1, 2012 – September 30, 2012

October 30, 2012

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List of Abbreviations

ACSM	Advocacy, Communication and Social mobilization
CHASS SMT	clinical HIV support services for Sofala, Manica and Tete
CMAM	<i>central de medicamentos e artigos médicos</i> (central medical stores)
CDC	Centre for Disease Control
EGPAF	Elizabeth Glaizer Pediatric AIDS Foundation
FGH	Friends in Global Health
IAs	Implementing agencies (for Community Based DOTS activities)
IP	Implementing partner
ICAP	International Center for AIDS Care and Treatment Programs
IPT	isoniazid preventative therapy
JHPIEGO	John Hopkins
KNCV	Royal Netherland Tuberculosis Association
LED	Light Emitting Diode
NMCP	National malaria control program
NRL	National Reference laboratory
MSH	Management Science for Health
NTP	National tuberculosis control program
MoH	Ministry of Health (Mozambican)
PCA	Patient Centered Approach
PMI	President Malaria Initiative
TB CAP	Tuberculosis Control Assistance Program
USAID	United States Agency for International Development
WHO	World Health Organization

Executive Summary

TB CARE I is a five year global USAID funded project implemented by TBCTA in partnership with KNCV Tuberculosis Foundation (KNCV) as the prime. The current project builds and expands upon previous USAID tuberculosis (TB) prevention and treatment efforts, particularly the success of the Tuberculosis Control Assistance Program (TB CAP), which was successfully implemented from 2006 to 2010. The project in Mozambique is currently entering its third year of implementation and this reports covers activities implemented in year two (April 1, 2012 to September 30, 2012).

Because of a late start of APA1 project activities from year one were carried over until March 30, 2012, delaying the start of implementation of year 2. For year two, the country buy in amount is US\$5,8 million which includes funding for the President's Malaria Initiative (PMI) and for project partners. The Project in Mozambique is led by FHI 360 (responsible for providing technical guidance and coordination), with KNCV, MSH and WHO as coalition partners. Mozambique is the only TB CARE I country program implementing malaria interventions funded through the (PMI), since April 2010. The malaria project provides national-level assistance to the National Malaria Control Program (NMCP).

Eight technical areas are covered by the project partners in the implementation of the TB CARE I project. FHI 360 is leading Universal access, laboratories, infection control, Programmatic Management of Drug Resistant TB (PMDT), TB/HIV, Health System Strengthening (HSS), Monitoring & Evaluation, Surveillance and OR, and Drug supply and management; MSH is responsible for drug supply and management, WHO is responsible for providing technical assistance under HSS, and KNCV's primary role is to provide cross cutting technical assistance in strengthening the Mozambican NTP national strategies. In addition to her technical assistance responsibilities, FHI 360 as the lead partner assumes a coordinating role in the implementation of all eight technical areas, and malaria.

Implementation of year one activities created a solid base of activity transition to year two, meaning the six months period of implementation had far reaching results than expected. The TB CARE I projects for this reporting year successfully:

- Increased CB DOTS coverage to more 9 districts through effective partnerships with local implementing agencies
- Diagnosed a total of 3.354 active TB cases (all forms) through community based volunteers referral activities
- Site installation of 3 GeneXpert machines and 18 LED microscopes with the subsequent training of sites lab technicians in use and management of the equipment
- Procured and received an additional 22 LED microscopes, totaling 40 LED microscopes purchased to date by the TB CARE I project
- A total of 983 (422 Females and 561 Males) clinicians in 3 provinces trained in malaria clinical diagnosis to ensure accurate malaria diagnosis at health facility level. The malaria training is a complementary element to the laboratory services, and follows the training of laboratory technicians completed in year one.

Introduction

The TB CARE I project in Mozambique is implemented through a coalition of 4 partners (FHI 360, KNCV, MSH and WHO) and currently covers 45 districts in seven geographical provinces of Mozambique representing 63% of the combined population in the target provinces and 48% of the total population in the country.

The project eight technical areas (Universal access, laboratories, infection control, Programmatic Management of Drug Resistant TB (PMDT), TB/HIV, Health System Strengthening (HSS), Monitoring & Evaluation, Surveillance and OR, and Drug supply and management) are designed to add synergies in the support given to the Mozambican NTP in TB control including drug resistant TB (DR-TB). Given the limited country capacity to fund TB control activities, the TB CARE I project plays a critical role for NTP in supporting the implementation of its strategic plan and innovations and improvements in the delivery of TB services.

Through the TB CARE I implementing mechanism, the project scope of work includes assisting the NTP to expand intensified case finding, provide universal and early case detection of TB (including access to DST for suspected cases) and treatment to all those with MDR TB, enhance airborne infection control efforts, expand access to and integrate treatment of TB and HIV in co-infected individuals, and assist national programs to strengthen the health system as it relates to TB.

The TB CARE I project applies a combination of strategies which include partnerships with other implementing organizations and an integrated approach to respond to the TB and malaria epidemic. Mozambique is the only TB CARE I country program implementing both malaria and TB interventions. The malaria activities are funded through the President's Malaria Initiative and the project provides national-level assistance to the NMCP. For the TB component, the project provides technical assistance to the Mozambique NTP, contributing to the national, global and Millennium Development Goals targets for TB.

The malaria activities are funded through the President's Malaria Initiative and provide national-level coverage. The main three components include: technical assistance to the NMCP with a focus on monitoring and evaluation, training of laboratory technicians in all the 11 provinces and implementation of an antimalarial drug efficacy study.

Universal Access

One of the priority areas for the NTP is expansion and consolidation of CB DOTS activities making it also an area of attention within the project. A third of FH 360 budget funds allocations are directed towards expansion and consolidation of CB DOTS activities implemented through local agencies. Objectives being to expand intensified case finding, increase early case detection and expand access to and adherence to treatment. KNCV also support the project through piloting of patient centered approach strategies and ACSM activities.

Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target	Result	Comments
					Y2	Y2	
1.1	Increased demand for and use of high quality TB services and improve the satisfaction with TB services provided (Population/Patient Centered Approach)	Updated information available on the quality of services from a patients' perspective	NTP needs to measure the patient perception of the quality of services available/accessible and the appropriate health seeking behaviors related to TB (disaggregated by provider and most as risk populations). Available tools for this purpose are the TB CAP's QUOTE TB and QUOTE TB LIGHT tools.	No	Yes	Yes	Pilot implementation of the PCA tools was conducted in 7 health facilities of the 2 selected districts of Nampula Cidade and Chibuto. A total of 12 nurses, 26 CB DOTS volunteers and 3 IA staff trained
1.2	Increased quality of TB services delivered among all care providers (Supply)	CB-DOTS program is implemented	This indicator measures the level implementation of CB DOTS from introduction to scaling up.	44 (36 TB CARE I)	54 (45 TB CARE I)	45 TB CARE I	The CB DOTS program was expanded to 9 more districts totaling 45 through partnerships with IAs

Key Achievements

A total of nine implementing agencies are implementing CB DOTS activities in 45 districts. In strengthening CB DOTS activities, the TB CARE I project supported the training of 1,300 (469 females and 831 males) community activists (including CB DOTS volunteers and traditional healers), and the trained community activists referred 20,502 TB/malaria suspects to health facilities. At the health facility level, the project trained 150 health technicians in TB/malaria case management (including diagnosis) and supervision of volunteers, who in turn diagnosed 3,354 active TB cases and 7,354 malaria positive cases.

Three ACSM regional workshops were conducted in the 3 country regions (northern, central and southern) in close coordination with NTP and were led by the KNCV ACSM senior adviser (Dr. Netty Kamp). At the end of each training, each provincial team developed its ACSM strategy which was later integrated into one regional strategy and these will be included

national ACSM strategy under development as well as inclusion in the government led provincial health sector strategic plan (PESS). Eighty seven MOH staff representing the countries eleven provinces participated.

After being trained in PCA and conducting a base line survey in APA1, the Mozambican country core team (comprising of TB CARE I staff, Research institution representative, NTP staff and representative of local NGOs) started implementation of PCA in the two selected districts of Chibuto (Gaza Province) and Nampula Cidade (Nampula Province). The Implementation methodology involved training health facility nurses, community based volunteers and staff of CB DOTS implementing agency (IAs) to lead the dissemination and distribution of PCA materials in selected health facilities and communities. A total of 12 nurses, 26 CB DOTS volunteers and 3 IAs were trained, and 2,280 patient charters copies, 36 TB literacy booklets, 36 teaching aids (Story of Thomas), 18 quote TB light booklets and 12 sets of Quote TB pictograms were distributed for use by volunteers and health technicians in disseminating PCA information and the patient charters to TB patients.

Three months after pilot implementation, a supervision visit was conducted by the core team to monitor implementation progress. Summary recommendations of the supervision visit included the need for strengthened involvement of IAs in the two districts, the necessity to train/mentor more nurses and volunteers to respond to demand, the need to produce more PCA materials to be distributed to the target districts, and the conduct of regular follow up to monitor progress via email and phone calls with IAs staffs and TB CARE I provincial officer in Nampula. Improvement in patient and population knowledge on TB will be expected to increase due to the improvement in health educations offered at health and community level.

With support from the TB CARE I, two MOH pediatricians attended a WHO-sponsored training workshop on improving pediatric TB management; since their return, they have been actively involved in pediatric TB case identification and have advocated for the acquisition of tuberculin and other pediatric TB diagnosis tools. They will also support in the finalization of a pediatric manual.

A costing exercise was conducted with implementing agencies from Niassa province to estimate the costs associated with implementation of the CB DOTS activities in each target district. The objective was to assess how each partner was contributing to overall NTP indicators of suspect referral and case identification and attach monetary value on their results. Information collected was also used in the TB CARE I annual meeting to evaluate progress achieved by implementation agencies against expected results. All implementing agencies were called on to reinforce and strengthen how they were implementing activities.

The malaria communication strategy has been finalized with support from WHO and the NMCP. The strategy is being translated into Portuguese for final approval by the minister of health. The printing and reproduction of the strategy will be done in APA3.

Challenges and Next Steps

The TB CARE I SOW has a target of 60 districts reached through expansion and consolidation of CB DOTS activities but currently the project is at 45 with more 5 districts targeted for expansion in year three. Main challenge is limited funding.

Existence of other health projects in the same TB CARE I CB DOTS districts which do provide monetary incentives to community volunteers has created a crisis as CB DOTS

volunteers are joining other projects which offer monetary incentives. Lesson learnt is to clearly highlight the concept of voluntarism to possible volunteers during the selection process, establish clear selection criteria and involve as much as possible the local and community leadership structures during the selection process and the project community owned.

Laboratories

The laboratory component forms a cornerstone for the TB CARE I project. Technical support in the implementation of lab activities is provided by MSH who provides technical assistance in mentoring the TB CARE I lab officer, training MOH lab technicians, and in guaranteeing the good functioning of the country's reference laboratories.

Technical Outcomes

Expected Outcomes	Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target	Result	Comments	
				Y2	Y2		
2.1	Ensured capacity, availability and quality of laboratory testing in country needed to support the diagnosis and monitoring of TB patients	Number of labs providing quality assured TB laboratory services for diagnosis and monitoring of TB patients to support the NTP	Quality laboratory services are defined as following pre-defined global set standards of laboratory procedures and practices. The procedures and practices must follow the Quality Assurance Cycle which is following proper management and analysis of specimens, Bio safety procedures, proper registering and validation of results in order to be accurate and reliable	0	57/114 (50% of the total labs that TB CARE I supports)	72/114	63% of laboratories in the TB CARE I geographic areas were visited and certified as performing quality lab services. Where there were issues recommendations and follow up visits were done to ascertain that set standards are met.

2.3	Ensured optimal use of new approaches to the laboratory confirmation of TB and incorporation in national strategic lab plans	Number of labs using new technologies	1. TB culture: 2 (1 central; 1 regional) 2. First line DST: 2 (1 central; 1 regional) 3. Second-line DST: 0 4. HAIN MTBDRplus: 0 5. GeneXpert: 0 6. LED microscopy: 0	1. TB culture: 2 (1 central; 1 regional) 2. First line DST: 2 (1 central; 1 regional) 3. Second-line DST: 0 4. HAIN MTBDRplus: 0 5. GeneXpert: 9 (1 central, 2 Provincial, 6 district) 6. LED microscopy: 20 (district)	1. TB culture: 2 (1 central; 1 regional) 2. First line DST: 2 (1 central; 1 regional) 3. Second-line DST: 0 4. HAIN MTBDRplus: 0 5. GeneXpert: 4; 6. LED microscopy: 0	GeneXpert : 3 LED: 40 (TB CARE I)	22 LED microscopes procured this reporting period. A distribution plan was elaborated by NTP in close coordination with TB CARE I. The microscopes will be distributed nationwide and lab technicians from the sites where the equipment will be installed will be trained in use and management of LED microscopes. The objective is to improve quality of TB diagnosed
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Key Achievements

Three integrated laboratory supervision and technical assistance visits were conducted in 3 TB CARE I provinces (Zambezia, Tete and Gaza provinces). Overall, 16 laboratories were visited during this period taking the total number to 72. Main visits recommendations included the improvement of sample registering, technical procedures, stock management and good laboratory practices. Measures taken by the team included onsite technical assistance in the filling in sample registry, training in good laboratory practices for AFB smear microscopy and stock management. Furthermore, AFB microscopy manuals have been distributed to all the laboratories to fill the gap of lack of SOPs.

The project completed the site installation of three GeneXpert machines and 18 LED microscopes in three sites - Gaza, (Hospital de Carmelo), Zambézia (Hospital Provincial de Quelimane) and Niassa (Hospital Rural de Cuamba), after pre installation assessment visits were conducted at the three sites in preparation of machine delivery and installation. The assessments led to the rehabilitation of the Cuamba district laboratory which was upgraded to fit the requirements of a standard clinical laboratory, with biosafety measures for AFB smear microscopy improved. In addition, 15 laboratory technicians from the three sites were trained in use and management of the GeneXpert equipment. The GeneXpert machines will be used to allow rapid diagnosis and treatment of MDR TB. Training of clinicians in suspect selection for Xpert testing will be conducted in early November 2012 as part of the Xpert implementation plan.

For LED implementation, 18 LED microscopes procured in APA1 were installed in 18 selected sites in 7 TB CARE I geographic provinces, and laboratory technicians from the site laboratories where microscopes were allocated were trained on their use and maintenance. The practical sessions also covered reagent preparation, staining and reading of slides. In APA2, an additional 22 LED microscopes were procured to expand the country laboratory network. These microscopes have been delivered at the designated sites and are awaiting installation. Technicians from the selected sites will be conducted in APA3. The acquisition of the 22 LEDs brings to 40 the total number of microscopes procured by the TB CARE I project to date

The project also supported the training for five days of 11 lab technicians from the three reference laboratories (Beira, Nampula and NRL Maputo) in quality assurance, biosafety, laboratory management and new technologies (GeneXpert, LED microscopy and Line Probe Assay), in close coordination with NTP and NRL, and with technical support from two MSH consultants and TB CARE I. During the training sessions, staff from the three reference laboratories and NTP developed work plans for the improvement of the quality of TB laboratory diagnosis.

In order to reduce the risk of lab acquired TB infection for the lab technicians, minor rehabilitations were conducted on a small "rondavel/hut" in Pebane district of Zambezia province to be used for AFB smear microscopy use which was being done in the main laboratory, and constituted a great risk of contamination for the lab staff and patients entering the laboratory for other tests. The newly rehabilitated unit will improve the biosafety and overall working conditions of lab staff.

The TB CARE I project supported the participation of the NRL focal laboratory technician for MDR-TB, the NTP Head and WHO NPO Officer at the annual Global Laboratory Initiative (GLI) meeting in France. The objective of the meeting was to build capacity of NTP staff in the management of the TB country programs. With knowledge gained from the meeting, the NTP signed a memorandum of understanding (MoU) between MOH and FIND, conditioning access to EXPAND-TB resources for improved diagnosis of TB and MDR-TB through the introduction of LPA at provincial levels in particular.

The project laboratory officer participated in the regional workshop on GeneXpert MTB/RIF in Mombasa. The objective of the workshop was to provide general guidance for the implementation of Xpert, and to introduce countries to the process of developing an implementation plan. During the workshop, the team developed a draft implementation plan for Xpert, and the plan was shared with MoH and TB Reference laboratory staff. A follow up workshop was organized in The Hague, and as a result of these workshops, the project Lab Officer will support NTP and RL staff in developing strategic plans for GeneXpert implementation in the country. Furthermore, support will be provided in training MOH Lab staff in technical aspects related to GeneXpert use.

The AFB smear microscopy manual was finalized with support of TB CARE I. The manual was developed due to the lack of AFB smear microscopy SOPs in the laboratory section. 1,040 copies of the manual were printed and distributed nationwide based on the distribution plan developed by NTP.

During the TB MDR surveillance system workshop, the TB CARE I project supported the development of an algorithm for GeneXpert use in Mozambique. The meeting involved participation of staff from the NRLT and partners involved in Genexpert use such as MSF and HAI. A draft national Genexpert algorithm was developed and approved for pilot use in the country. The pilot test will be for one year and the algorithm will be revised thereafter.

The procurement of laboratory consumables and reagents through the malaria funds was completed with more than 500,000 laboratory slides purchased and distributed nationwide.

Challenges and Next Steps

Procurement of laboratory equipment and reagents still poses a challenge as the process takes longer than planned due to delay in approval process. Lesson learnt for APA3 are to

initiate all procurement as the start of the budget year, in order to avoid reporting of accrual funds at the end of each reporting quarter.

Difficulties in implementing EQA in all labs performing AFB smear microscopy (feasibility)

Inadequate laboratory infrastructures for AFB smear microscopy which makes it difficult to implement biosafety measures. In most of the labs operating in the country at peripheral level, there is no specific room for AFB smear microscopy. All activities are performed in the same space/room and the rooms don't have adequate IC mechanism such as windows for ventilations.

The project will install the recently acquired 22 LED microscopes and complete in APA3 the procurement of 15 additional LED microscopes. Thirty seven lab technicians will be trained in LED use.

Infection Control

Initially this area was not a priority for TB CARE I as it was being addressed by other USAID funded partners such as JHIEGO; however, due to more gaps being identified by NTP, small scale interventions are being done by the TB CARE I project. More interventions will be implemented in APA3

Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target Y2	Result Y2	Comments
3.2	Scaled-up implementation of TB-IC strategies Fits better to the activity	Facilities implementing TB IC measures with TB CARE support	Facilities that received support for implementation of TB IC measures through TB CARE out of the number of facilities planned to receive support for TB IC implementation	0	1000 checklists produced	174 checklists produced	Rather than producing IC checklist, the NTP prioritized the finalization, printing and distribution of performance evaluation instruments (IMD) to measure implementation of IC activities.

Key Achievements

In close collaboration with Infection Control Program (PCI) at MoH and JHPIEGO, the TB CARE I project supported the printing and distribution of 174 performance evaluation instruments (IMD) to measure implementation of IC activities in Niassa, Cabo Delgado, Nampula and Sofala. The plan of distribution was based on the needs of the provinces and

number of health facilities already integrated in this evaluation system. Previously through JHPIEGO, has been supported the ministry of health in the implementation of the IMD instruments in selected sites and evaluations conducted have shown that IC measures have improved including for TB activities. The TB CARE I project is thus supporting through printing and distribution the expansion in the use of the instruments in other provinces.

Challenges and Next Steps

Expansion of IC interventions will be done in APA3 with community infection control activities piloted in selected districts. The activity will be led by FHI360.

So far 170 facilities have been supported in the IMD evaluation system through JHPIEGO. The MOH target is to reach 600 facilities in phase one. All partners are providing support, including TB CARE I.

Programmatic Management of Drug Resistant TB (PMDT)

The PMDT national strategy is being developed for NTP with support from KNCV and TB CARE I. A total of 58 MDR TB cases were diagnosed and equal number of patients put on treatment.

Technical Outcomes

Expected Outcomes	Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target	Result	Comments
				Y2	Y2	
4.1 Improved treatment success of MDR	Percent of MDR TB patients who have completed the full course of MDR TB treatment regimen and have a negative sputum culture.	MDR TB patients who are still on treatment and have a sputum culture conversion 11 months after starting MDR TB treatment	43	50	0	The data collection system is being strengthened through a consultant contracted in APA2 so that information can be available

Key Achievements

The project is supporting the NTP in the development of a PMDT national strategy. Technical assistance is being provided by KNCV Senior Consultant, Dr. Vincent Kuyvenhoven, who conducted a TA visits to Mozambique to conduct an assessment of TB MDR diagnosis and treatment and the level of follow up of MDR TB patients. The visit also included a site assessment of the Beira reference lab in relation to the functioning of the laboratory. Information collected was incorporated into the PMDT National Strategy.

TB CARE I and other PEPFAR partners provided technical and financial support to a CDC-led assessment of MDR-TB notified patients from 2007 till 2011. The purpose of the assessment was to verify registry information about case management and treatment results. The TB

CARE I project will also support data entry and analysis for the study. The study results will inform the development and finalization of the National PMDT strategy

An evaluation of the GeneXpert standard of operation procedure was also carried out as part of a national strategy to develop a standardized procedure for Mozambique as each partner and the MOH are using different systems. At central level, the KNCV consultant held several meetings with the support team (consisting of the TB CARE I Technical Officer and NTP MDR-TB focal person) to finalize the PMDT strategy for Mozambique. A final draft of the PMDT strategy was submitted for review and approval by NTP.

A second batch of 1,000 MDR TB manuals was printed and distributed to all 11 provinces. The manuals are used by clinicians for MDR TB cases diagnosis, treatment and proper case management. From supervision reports, an increase on the number of cases diagnosed and case management has improved in general.

A two day workshop was conducted with NTP and main TB hospitals representatives in country as a step to establish a surveillance system on TB and TB MDR. This workshop counted with the participation of high level staff from MoH, including at national level, the National Deputy Director for Public Health, NTP Manager and National Medical Safety representative, and MOH staff from provincial TB hospitals in Beira, Nampula and Maputo. As result of this workshop, each province developed an action plan of TB and MDR TB surveillance system to be implemented in each province. The implementation will be in phases and is going to start in January 2013 within the main TB units.

Challenges and Next Steps

Weak NTP M & E system in the collection and analysis of MDR-TB data. This results in under reporting of information but the project is strengthening the system and has hired a local consultant specialized in M & E to improve and develop existing and new tools for the NTP. The new systems will be incorporated in the new NTP National Strategic Plan under development with support from TB CARE I.

TB/HIV

The country 's TB/HIV co-infection rate continues to increase with current rate at 66% but little is being invested by the Mozambican MOH to address this priority area. The project in APA2 has addressed the gap by training clinicians working directly with the NTP in management of TB/HIV cases, screening of TB/HIV in the two sectors as well as diagnostic skills of DR-TB. This approach will be intensified in APA3 with follow up trainings and monitoring visits.

Key Achievements

Sixty clinicians (among them 20 medical doctors and 37 medical technicians) from two TB CARE I geographical areas were trained in TB/HIV collaborative activities. The workshops were led by Dr. Paula Perdigao, a pneumologist. NTP provincial supervisors and TB MDR focal points served as co-facilitators. Pre- and post-evaluation tests were conducted to determine the impact of the training, and their results showed a 45% increase in TB/HIV collaborative activities following the training. Each workshop participant received a copy of the TB clinical and DR TB diagnostic manuals for reference

Challenges and Next Steps

There is an insufficient number of health clinicians/personnel trained in TB/HIV collaborative activities, which directly affects screening of TB in HIV patients as well as HIV in TB patients.

QE/QA system existing in Mozambique (CLINIQUAL, based on USG HIVQUAL model) will help guide priority areas of intervention targeting improved quality of care, hopefully shared with other partners for generalization of selected strategies, mentoring in particular.

Health System Strengthening (HSS)

All Mozambique TB CARE I partners support the NTP in this technical area through capacity building, training of MOH staff and technical assistance. The TB CARE I FHI 360 Lab officer and M & E officer provide on the job assistance to NTP M & E department and NTP Lab Section by sitting one day per week at the respective departments. The WHO NPO Officer for M & E and MSH Drug management specialist permanently sit at the NTP. The partners do also provide numerous trainings to the MOH and NTP staff in all TB CARE I technical areas , to build staff capacity and strengthen the functioning of the MOH health system

Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target Y2	Result Y2	Comments
6.1	Ensured that TB control is embedded as a priority within the national health strategies and plans, with commensurate domestic financing and supported by the engagement of partners	TB care and control strategic plan embedded within national health strategies, including quantifiable indicators and budget allocations	Countries with National Health Strategies that include specific TB care and control activities, specific for TB or as part of wider strategies for communicable diseases, budgeting processes and sector monitoring systems	No	Yes	Yes	The NTP strategic plan has been drafted and the missing M & E component and budget section are in progress by a consultant contracted by TB CARE I
6.2	TB control components (drug supply and management, laboratories, community care, HRD and M&E) formed integral part of national plans, strategies and service delivery	Integrated supervision visits conducted	Supervisory visits conducted according to country supervisory standards	Central: 36% (8/22) Provincial : 3% (8/256) District: NA	Central: 50% (11/22) Provincial: 47% (120/256) District: NA	Central 18/22 Provincial 143/256	

	of these components						
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Key Achievements

TB CARE I supported the training of 983 (422 Females and 561 Males) clinicians on malaria clinical diagnosis and management, in the provinces of Cabo Delgado (phase 2), Tete and Manica. The training in Cabo Delgado began in the first year (APA1) and the majority of clinicians in that province were trained that year. The clinical management training is a complementary training to the lab training meant for laboratory technicians. The objective is to ensure correct malaria diagnosis and proper case management at health facility level. The other PMI Malaria partners have funded the training in the provinces.

Annual TB CARE I meeting with partners was held in September. All CB DOTS implementing agencies were represented; the meeting was also attended by NTP Provincial Supervisors from all 7 TB CARE I provinces and Central NTP staff including the NTP manager. The meeting objectives were to evaluate implementation of CB DOTS activities, share challenges, lesson learnt and new implementation strategies to improve and strengthen CB DOTS activities. As part of areas to be improved in APA3, collaboration and coordination between NTP and CB DOTS partners will be strengthened through regular monthly or quarterly meetings at district level and carrying out of integrated district level M & E and activity supervision visits.

Two field visits were conducted to Manica and Sofala provinces to supervise CB DOTS activities being implemented by ADPP. A total of 7 districts (3 in Sofala and 4 in Manica) visited. The visits were integrated with NTP district supervisors and CHASS SMT as a way of strengthening project activities across FHI360 Mozambique projects. Immediate results of the visits were the conduction of an activity re-planning exercise to respond to needs at district levels related to CB DOTS, development of an in-service training plan for peripheral health staff, community supervisors, field officials and community volunteers.

FHI 360 Senior Scientist (Dr. Carol Hamilton) visited Mozambique during the period from June 16 to 23, 2012. The main objectives of her visit were to meet with the NTP and NMCP to discuss the priorities interventions to be addressed by the TB CARE I integrated project and provide technical assistance on TB CARE I priority areas including TB and malaria research activities. Dr. Hamilton also conducted a field visit to one of the TB CARE I target provinces where she completed a review of the status of implementation of project activities planned for year 2. A FHI 360 headquarters-based research associate also visited the project during the same period (June 16 to 23) to conduct a cost analysis of the TB/Malaria integration. Main recommendations from the mission report included the need to focus on increasing MDR TB detection and treatment capacity by hiring a person with MDR TB expertise to support NTP, push to finalize GeneXpert algorithm and implement and improve communication for referral lab (culture, DST, LPA, Xpert) results to get back to clinicians and CB DOTS in a more timely manner. These recommendations have been included in the APA3 work plan and some areas have been covered partially in APA2

In response to the recently held USAID RIG audit recommendations to improve TB/HIV activities, specifically where testing was significantly lower in provinces with the highest HIV prevalence, resulting in missed opportunities for HIV prevention and treatment, the TB CARE I project conducted a three day workshop on TB, TB/HIV, MDR TB and Pediatric TB directed to all TB and HIV partners at provincial level. FHI360 staff from the TB CARE I project, the CHASS Niassa and CHASS SMT projects together with representatives from other partners as JHPIEGO, ICAP, EGPAF, and FGH attended the workshop. Staff from CDC, USAID and WHO were also present in the workshop. The workshop was led by TB CARE I technical Officers and NTP central level staff provided technical support and orientation during the training. Various topics were covered including Pediatric TB and incentives for community volunteers.

The 11 motorbikes procured by the project in its first year (APA 1) were distributed to the NTP and CB-DOTS implementing agencies during this reporting quarter. Access to these motorcycles will strengthen the capacity of TB District Managers to conduct supervision visits and default tracing, and to provide technical assistance to the health facilities and CB-DOTS volunteers.

The TB CARE I project supported the participation of the FHI360 Mozambique Infrastructure manager at the regional infection control (IC) workshop held in South Africa. The workshop objective was to build capacity of lead staff involved in the construction of health facilities to incorporate infection controls measures in new construction or rehabilitation plans. The trained staff will in APA3 replicate the same training targeting all MOH infrastructure technicians at provincial level and staff from other organizations supporting the ministry of health in health facility constructions.

Support was provided by the TB CARE I project in the printing the Malaria Policy and Malaria Strategic plan guidelines. A total of 800 copies (400 of each) were printed to support the NMCP and the copies have been distributed nationwide.

Challenges and Next Steps

The limited funding for the NTP to conduct supervision and training workshops for key provincial personnel forces the program to rely heavily on external funding sources and support from projects. This reliance on external funds is important in the short run, but raises questions about the long-term sustainability of the activities.

The slow contractual process for PMI funded positions to support the NMCP due to bureaucratic red tape within the NMCP has affected program implementation. Thus, malaria supervision visits budgeted for could not be implemented during APA2, as the M & E officer has not been contracted.

Monitoring & Evaluation, Surveillance and OR

Support to NTP in this area is provided by WHO and FHI 360. The WHO NPO Officer provides technical assistance to NTP M & E department and the FHI360 TB CARE I M & E Officer sits one day per week to support the NTP M & E department in strengthening its M & E systems, tools and data collection techniques and systems.

Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target	Result	Comments
					Y2	Y2	
7.2	Improved capacity of NTPs to analyze and use quality data for management of the TB program	NTP provides regular feedback from systematic analysis of surveillance and programmatic data and related recommendations by central to lower levels	NTP prepares and disseminates quarterly feedback reports from central to lower levels based on analysis of national surveillance and programmatic data.	0	11	11	Project supported NTP in supervision visits to all 7 TB CARE I geographic areas and feedback/recommendations provided to lower levels.
7.3	Improved capacity of NTPs to perform operational research	Number of surveillance studies completed and results incorporated into national policy/guidelines	OR completed and reports available and number of instances where OR study results have led to changes in national policy during the current year	0	Out of 4 total studies underway, target to complete: 2; results to be incorporated: 0	0	All OR studies have been cancelled to APA3. The KAP protocol was revised by FHI360 PHSC and the project is still working on the comments pending its approval

Key Achievements

Support was provided to the NTP at central level in carrying out provincial supervision visits. These visits are crucial in improving the NTP TB control activities, as on the job training, and technical support to provincial and district supervisors and strategies are shared during the visits. This quarter, five visits were conducted to five provinces (Nampula, Gaza, Tete, Zambezia, Niassa) by both NTP and TB CARE I staff.

TB CARE I provincial officers carried out supervision and monitoring visits in 18 districts of two provinces (Nampula and Zambezia) in close coordination with NTP at provincial level and CB DOTS implementing partners. The objectives of the visits were to support implementing agencies in CB DOTS implementation as well as assess quality of

implementation in line with NTP national standards. On the job training exercises were provided to health technicians, and the CB-DOTS volunteers received technical assistance in referral of TB suspect and data collection and reporting. Coordination meetings were also held with CB-DOTS implementing agencies field officers for each district with NTP district staff to review status of implementation and identify gaps and strategies to strengthen implementation. The Provincial officers play a significant role in the success of the implementation of CB-DOTS and also in strengthening NTP provincial supervisors' capacity.

The WHO National Program Officer supported the publishing of the TB epidemiological report for WHO and SADC.

The elaboration of the NTP M&E plan which was the remaining component in the development of the NTP National Strategic Plan (2013-17) is now underway. The process was started in November 2012 with review of all forms and indicators, and their adaptation to new diagnostic tests in particular and will finish in November 2012, with its incorporation into the overall strategic plan to follow thereafter.

A curriculum for capacity-building on data analysis and use at various levels (district, province, national) is being designed, in line with MoH and training institutions orientations and existing trainings. Its implementation is planned across APA3

The research agenda on TB and lung diseases was finalized, with contribution and support from WHO.

The TB Knowledge Attitude, Practice and Behavior (TB_KAPB) study protocol has been finalized with input from FHI360 TB technical adviser, and submitted to FHI 360 Protection of Human Subject Committee (PHSC) for final review and approval. Nweti, a local research and media institution will conduct the study.

Challenges and Next Steps

The main challenges are:

- 1) The establishment of a computer network to support NTP data base management, as some provinces do not have adequate infrastructure to support the system. Also, not every province has broad band network coverage. The project will now coordinate with GovNet to make sure every province is connected.
- 2) The revision and design of the new NTP M & E instrument and tools have taken longer than expected. The new target completion date is the end of December with dissemination and training planned for January 2013. Implementation will follow soon afterwards.

Drug supply and management

MSH is the lead partner for the drug management component. MSH supports NTP directly with the MSH drug management specialist sitting within the NTP department.

Technical Outcomes

Expected Outcomes	Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target	Result	Comments	
				Y2	Y2		
8.1	Ensured nationwide systems for a sustainable supply of anti-TB drugs	Quarterly national stock information available		No	Yes	Yes	A follow up training was conducted for TB Provincial Supervisors from Provinces with TB CARE I support in the use of LMIS

Key Achievements

In addition to the long-term TA provided by MSH drug management specialist, the NTP received two STTAs (short-term technical assistance) visits from MSH consultants. The first visit was a quick appraisal of the TB commodity management situation in the country (document review & limited field visits), and the objective of the second visit was to review APA2 work plan, develop APA2 implementation plan, and participate in TB CARE I phase one work planning for APA3 and NTP 2013 -2017 Strategic planning activities.

Four supervisions were conducted on drug management to key Provinces with TB CARE I support (Sofala, Tete, Manica and Zambezia). Another visit was done to Nampula Province with the Head of NTP to address the main issues related to drug management.

The major findings from the supervisory visits were:

- Stock outs of some TB Drugs.
- The form used by the districts for drug supply is not the one approved and used at central level.
- No forms to request TB MDR drugs.
- Lack of communication between NTP and Pharmacy.
- Order fill rates from central to province and province to district are low (sometimes below 50%).
- Urgent need for training on drug management at all levels.

Priorities were set, and acted upon, beginning with the establishment of a coordinating mechanism to follow up shipments and national stock status. For this a technical working group (TWG) was created, and Terms of Reference were developed and institutionalized. The members of the TWG include NTP, CMAM (Central of Medical Stores), DPC (Planning and Coordination Department from MOH), USAID and PD (Pharmacy Department).

The first activity implemented by the TWG was pipeline update, which showed delays in almost all procurement processes (from GF to GDF and WB). As a result, all efforts were focused on getting the processes on track and two emergency procurements were made

with State Budget (one in February and another in June) to avoid stock outs. The use of data provided by the drug management tools combined with the excellent coordination between NTP, CMAM (Central of Medical Stores) and main partners (CDC, WHO and others) were key to defining ways of procuring the drugs on time at the country level.

In order to have an equitable distribution plan and facilitate stock management, an excel database was designed to gather information from PNCT11 based on number of patients, stock on hand at the end of quarter, quantities requested, NTP distribution plan, quantities distributed and received at provincial level.

Training Modules, including the one for Drug Management, were reviewed and finalized, and the training of TB Provincial Supervisors was conducted with TB CARE I support. CMAM (Central of Medical Stores) led the training, which means the SOPs are institutionalized.

A national three day workshop for Annual Forecast and Quantification (F&Q) of TB Drugs was conducted by NTP with support from the TB CARE I Drug Management Specialist. Immediate results of the workshop were the finalization of the Drug Pipeline update and a Financial Gap Analysis for the next 2 years. Support was also provided to the NTP in obtaining an advance procurement of anti-TB drugs from the MOH in order to avert an imminent stock out.

Review of Logistic and Management Information System (LMIS) was conducted with support of TB CARE I. The factors affecting quantification of drugs indicated in the NTP reports on drug management were updated according to treatment guidelines. Along with this, a new tool/report was developed for 2nd line drugs (SLDs).

Challenges and Next Steps

One of the challenges for APA2 is to disseminate the updated Tools and SOPs in order to have accurate data for drug management and maintain a full supply chain (thus avoiding stock outs and/or expired drugs), and ensure availability and access to TB drugs to all patients.

An active pharmacovigilance is planned for APA3, in collaboration with the Pharmacy Department, specially to monitor 2nd line drugs, particularly the use of Capreomicine.

Sampling and testing of TB drugs will be prioritized during APA3.