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**CHALLENGE TB**



**Challenge TB - Cambodia  
Year 2  
Quarterly Monitoring Report  
January-March 2016  
Submission date: April 29, 2016**

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*Cover photo: Contact investigation among close contacts at household level (Credit: Ngo Menghak)*

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### **Disclaimer**

The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

## 1. Quarterly Overview

Country	Cambodia
Lead Partner	FHI 360
Other partners	WHO, KNCV Tuberculosis Foundation (KNCV)
Work plan timeframe	October 2015 – September 2016
Reporting period	January-March 2016

### Most significant achievements:

#### I. OPERATIONAL RESEARCH

Challenge TB (CTB) has developed a study protocol called “Active case finding for tuberculosis in Cambodia: A cluster randomized controlled trial. The study will be implemented in 60 Health Centers (HC), 30 HCs in ‘Intervention Arms’ and another 30 HCs in the ‘Control Arm’. The study population of this study is elderly age (55 years old and above) and approximately 69,000 will be enrolled in the study. CTB has fully consulted and involved the national tuberculosis (TB) program in the design of the study. The primary objective of the study is to determine the effectiveness and additional yield of a house to house TB screening approach with an on-site diagnosis by GeneXpert (Xpert) testing and Chest X Ray (CXR) added on to CTB’s current approach (TB screening at pagoda plus health-center (HC)-based Contact Investigation (CI)). Health centers in four operational districts (OD) such as Battambang, Sangke, Maung Reussey and Korng Pisey will be the unit of randomization. The study protocol had been approved by the national ethics committee and conditionally approved by FHI 360’s Institutional Research Board (IRB). The clarification of those questions and comments from IRB’s committee will be submitted for their review and final approval. The study is expected to start in May.

#### II. EDUCATIONAL TOOLS DEVELOPMENT

During this reporting period, two patient-education posters were developed and field tested. We now need to get the final approval from the director of the national TB program before printing them. The first poster is to instruct presumptive TB patients on how to produce good quality sputum. The primary audience of this poster is all presumptive TB patients. The second one is to increase knowledge and awareness of having suggestive TB symptoms and its primary audience is general populations and sick people at hospitals and community (annex1: posters). CTB has shared these two posters with Empowerment Community for Health (ECH), a USAID partner working on Community Direct Observed Treatment for TB (C-DOT). They like the design and will reprint to be used at their target sites. When they are approved, more than 1,000 posters will be displayed in the community, at the HCs, Referral Hospitals (RH) and public places such as pagoda in CTB’s and ECH’s targeted areas to increase the TB awareness of community which it is hoped will also promote the health seeking behavior of community for early TB diagnosis and treatment.

#### III. TB SYMPTOMS INCLUDED IN GENERAL MEDICAL TRIAGE FORM

The general medical triage forms are currently used widely at referral hospitals in Cambodia. CTB, Quality Health Service (QHS), (a USAID funded project) and the National Center for Anti-Tuberculosis (CENAT) have jointly revised this document to include the four TB symptoms (cough, fever, weight lost and night sweats). The revision of medical triage had been approved by the Ministry of Health to be used at the triage. As a result of this work, the TB screening will be implemented at every referral hospital and the inclusion of TB symptoms in the form will remind physicians or nurses to screen every patient who

comes to the hospital on TB. The revised triage form will improve the TB case findings at hospitals and is intended to have a broad impact on TB case notification in Cambodia.

#### **IV. USAID VISIT TO CHALLENGE TB PROJECT**

Dr. William Wells and Ms. Elisa Adelman from USAID Washington, visited the CTB project from 8 to 9 March 2016. The objective of this mission trip was to finalize the Mission's TB strategy for Cambodia. CTB had the opportunity to present its project activities and key achievements and successes. In 2015 (January to December), CTB had contributed 20% (7,059) of TB case notifications to the national TB case notification in which CTB's project geographic coverage is at 10%.

The USAID staff visited the activities of TB screening among elderlies in pagoda on holy day, contact investigation at patient household and active case findings at So Sen HC. The visit to CTB activities has provided the USAID staff good insight into the CTB project in Cambodia and challenges encountered to be used for the TB strategic development for the Mission.

#### **Technical/administrative challenges and actions to overcome them:**

- **Patient's referral to RH:** Transportation of presumptive TB patients to RH for workup diagnosis still continues to be a major challenge as mentioned in the previous quarterly report. No public transportation is available in those settings and most of those places are remote and far from RH. It was noted that Cambodia detects TB cases in an earlier stage, so smear positive TB cases are less likely to be found and TB cases are more likely to be smear negative. With the absence of CXR, it is difficult to identify the TB cases for clinically confirmed cases. The limitation of transportation will have negative effect on case notification.
  - **Action taken:** In the CTB's coverage area, CTB staff will continue to work with HC to identify local private transportation to transport those presumptive TB patients to RH. In the ECH's coverage area, CTB has communicated with ECH for their assistance to bring those presumptive TB patients to RH. A role for current Xpert machine may be considered if sample transport is a more feasible option for CI activities or if we are able to purchase or access to Xpert Omni.
- **Improvement of CXR reading skills:** CTB has discussed with the director of CENAT the implementation of the improvement of Chest X-ray reading skills. These activities include bringing in a consultant to jointly work with CENAT focal persons to develop a training curriculum and provide on-site technical support to staff at hospitals where X-ray machines are available. The director of CENAT has suggested that CTB should consider using the current CTB staff and government partners to implement this activity. There will be challenges to carry out this activity with the current CTB staffing stretched with current roles and responsibility.
  - **Action taken:** CTB will continue discussions with CENAT to implement this activity. For sites lacking Radiologist reading, electronic transport of CXR and remote reading (i.e. tele-radiology) may be an option, or consider to purchase and train using an automated x-ray reading system such as CAD4TB and funding dependent of course.
- **Low MDR case notification: the reimbursement system for sputum transport for suspected MDR TB cases for Xpert and culture test does not function well.** This is one (among other factors such as misclassification of TB cases (e.g. retreatment cases they classified as new cases), insufficient supportive supervision and no follow-up of the referral

of presumptive MDR TB patients that hinders the referral of sputum of MDR suspects for testing. The obstacle is a key factor in the decline of MDR case notification.

- **Action taken:** In the short term solution, CTB will work with sites where hospital engagement is implemented to pilot the financial support system—quicker and faster reimbursement and clear instruction on the need of supporting documents that needs for the financial re-imburement. In a long term solution, CTB will work with CENAT to revisit the current support system and propose a solution. CTB staff will jointly conduct supervision activities with TB supervisor at central or provincial levels to sites to make a correction on misclassification and refer those patients and develop a feedback mechanism on presumptive MDR TB patients for testing.

## 2. Year 2 activity progress

Sub-objective 1. Enabling environment								
Planned Key Activities for the Current Year	Activity #	Planned Milestones				Milestone status	Milestone met? (Met, partially, not met)	Remarks (reason for not meeting milestone, actions to address challenges, etc.)
		Oct-Dec 2015	Jan-Mar 2016	Apr-Jun 2016	Year end	Oct 2015-Mar 2016		
Public Private Mix (PPM) TB DOTS	1.1.1	<ul style="list-style-type: none"> <li>- Negotiate and establish MOU with PPs in target ODs</li> <li>- Sign MOU with PPs (private providers)</li> <li>- Map the private providers</li> <li>- Orientation of the project with PPs for the startup of implementation</li> </ul>	<ul style="list-style-type: none"> <li>- Implement PP to all selected 3 ODs from Q2 onward—</li> <li>- track number of referral and TB diagnosed referred by PPs from Q2 onward</li> </ul>	<ul style="list-style-type: none"> <li>- Internal review of the PPM activities</li> <li>- Sharing experience to CENAT and other stakeholders</li> </ul>	PPM approach implemented, refined and plan to expand to other ODs	<b>Not accomplished</b> The PPM activity was being re-considered by the Mission and concurred with in late Mar.	<b>Not met</b>	After concurrence by the Mission, preparations started and the communication has been made with the consultant to see his availability to perform the task.

Sub-objective 2. Comprehensive, high quality diagnostics								
Planned Key Activities for the Current Year	Activity #	Planned Milestones				Milestone status	Milestone met? (Met, partially, not met)	Remarks (reason for not meeting milestone, actions to address challenges, etc.)
		Oct-Dec 2015	Jan-Mar 2016	Apr-Jun 2016	Year end	Oct 2015-Mar 2016		
National TB lab operational plan	2.1.1	<ul style="list-style-type: none"> <li>-Discuss with CENAT lab director to form team to develop a lab operational plan</li> <li>-Review existing TB lab guidelines and other relevant documents</li> <li>- Consultative meeting with key lab technicians/ supervisor and partners</li> </ul>	<ul style="list-style-type: none"> <li>- Draft the national lab operational plan with consultation with TB lab director</li> <li>- Consultative meeting to get comments / inputs on the draft</li> </ul>	<ul style="list-style-type: none"> <li>- Revise the lab operational plan according to the comments / inputs</li> <li>- Present the final draft operational plan to TB lab director and team on the revised</li> </ul>	Operational plan and lab guidelines developed and used	<b>Accomplished</b> CTB discussed initial plans with lab director of CENAT in order to develop lab operational plan. The Lab director agreed to conduct an annual operation plan workshop involving all provincial TB Lab supervisors.	<b>Partially met</b>	<p>This task has not been implemented due to the competing priority of CENAT staff with the Xpert machine expansion and trainings.</p> <p>CTB will lay out the plan and fix the date to do this with lab director in Q3.</p>

Provide TA to the lab at national, hospital and health center levels to ensure the quality of smear microscopy preparation and reading	2.2.1	<ul style="list-style-type: none"> <li>- Act as a secretariat of Technical Working Group on laboratory throughout the year.</li> <li>- Conduct EQA to all 18% (40/215) microscopic centers.</li> <li>- Perform on site coaching at microscopic centers to ensure the good ability of smear preparation and reading in 10 of 40 microscopy centers which has scored lower than acceptable level on the EQA report</li> </ul>	<ul style="list-style-type: none"> <li>- Onsite coaching to at least additional 10 microscopic centers whose EQA score is lower than acceptable level on EQA report.</li> <li>- Provide on-site coaching and support to Xpert sites which have problems trouble shooting</li> </ul>	<ul style="list-style-type: none"> <li>- Conduct EQA to other additional 10 microscopic centers sites whose score is lower than acceptable level on the EQA reports</li> </ul>	<ul style="list-style-type: none"> <li>- On site coaching to 40 microscopy centers under CTB geographic areas</li> <li>- Quality of smear preparation and result of reading is at an acceptable level (as defined by EQA SOP)</li> </ul>	<p><b>Accomplished</b></p> <ul style="list-style-type: none"> <li>- CTB established as secretariat of TB Lab technical working group</li> <li>- 2 TB Lab TWG meetings conducted</li> </ul> <p><b>Not accomplished</b></p> <ul style="list-style-type: none"> <li>No EQA has been done in reporting period.</li> </ul>	<b>Partially met</b>	EQA performance is under Global Fund (GF) which did not conduct EQA during the previous and this period. Once the GF EQA begins, CTB will provide coaching support and improve capacity of the lab technicians whose lab was found to demonstrate poor EQA performance.
Development of National TB Lab Guidelines	2.2.2	<ul style="list-style-type: none"> <li>-Discuss with the CENAT lab director to form a team to develop a lab guideline</li> <li>-Review existing TB lab guidelines and other relevant documents</li> <li>- Consultative meeting with key lab technicians/ supervisor and partners</li> </ul>	<ul style="list-style-type: none"> <li>- Draft the guidelines to include smear microscopy, Xpert (and culture with consultation with the TB lab director</li> <li>- Consultative meeting to get comments / inputs on the draft</li> </ul>	<ul style="list-style-type: none"> <li>- Revise the guidelines according to the comments / inputs</li> <li>- Present with the draft guideline to the TB lab director and team on the revised</li> </ul>	Final draft of guidelines	<p><b>Accomplished</b></p> <ul style="list-style-type: none"> <li>- Discussion on the outline of laboratory guidelines was made</li> </ul> <p><b>Not accomplished</b></p> <ul style="list-style-type: none"> <li>- Consultative meeting with key lab technician was not conducted</li> </ul>	<b>Partially met</b>	<p>The ToR has been finalized in January. CTB will submit ToR and the proposed consultant for Mission concurrence.</p> <p>The Guideline table of contents, and outline, has been reviewed by CENAT's laboratory director, and his comments have been provided to the consultant in preparation for the consultancy in early Q3. The consultant has not been available until now.</p>
Revise national TB lab EQA SOP	2.2.3	<ul style="list-style-type: none"> <li>- Work with national TB lab team to review the existing EQA SOP</li> <li>- Consultative meetings with EQA national assessors to get comments and inputs on EQA SOP</li> </ul>	<ul style="list-style-type: none"> <li>- Revise EQA SOP according to the comments/ inputs</li> <li>- Discuss with TB lab director on the revised EQA SOP</li> </ul>	Finalize TB lab EQA SOP	Endorsement from NTP director on final version of EQA SOP	<p><b>Not accomplished</b></p> <p>It seems that the director of national reference lab at CENAT was not committed to revise EQA SOP due to his rationales that they may not have budget to cover if there is a significant change.</p>	<b>Not met</b>	To continue discussions with lab director to explain the rationale of the current sampling method of slide selection for EQA if the fixed number of slides can be revised to number of slides selected that is proportional to actual number of slides performed by microscopic HC.
Improve the operation and performance	2.4.1	<ul style="list-style-type: none"> <li>- Develop a simple operation instruction</li> </ul>	<ul style="list-style-type: none"> <li>- Coaching support on</li> </ul>		<ul style="list-style-type: none"> <li>- Operation instruction</li> </ul>	<p><b>Accomplished</b></p> <ul style="list-style-type: none"> <li>- Coaching support has</li> </ul>	<b>Met</b>	

quality of Xpert machines.		to operate and maintain the Xpert machines, using the manufacturer's guideline (e.g., Xpert machines on mobile vans, etc.) - Enforce system to avoid stock out of cartridge, throughout the year	operation to Xpert machines at 33 sites from Q2 onward - Provide on-site training to lab technicians on the operation, maintaining and basic fixing from Q2 onward. - Operation instruction printed and distributed to Xpert machine sites		printed and distributed to 33 Xpert machine sites	been provided by CTB staff to the lab technicians at Xpert sites. - An operational instruction Job add posters) has been developed and printed to instruct the lab technicians for their daily operation and to fix when having minor trouble shooting.		
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### Sub-objective 3. Patient-centered care and treatment

Planned Key Activities for the Current Year	Activity #	Planned Milestones				Milestone status	Milestone met? (Met, partially, not met)	Remarks (reason for not meeting milestone, actions to address challenges, etc.)
		Oct-Dec 2015	Jan-Mar 2016	Apr-Jun 2016	Year end	Oct 2015-Mar 2016		
Elderly: Semi Active Case Finding (ACF)	3.1.1	- 15 PHD sub-contracts finalized and signed - Mapping pagodas, slum and high risk remote areas to conduct Semi Active Case Finding - Implement Semi ACF in 25 selected sites in 2 ODs.	Additional 25 selected sites of 2 ODs implemented Semi ACF - Provide technical supports as needed to ECH - Semi ACF approaches modified to catch the hard to reach population	- Additional 25 selected sites of same 2 ODs implemented semi ACF	- all sub-contracts developed and signed with 15 sub-contractors - Semi ACF implemented in a total of 100 selected areas under 29 HCs of 2 ODs.	<b>Accomplished</b> Sub contracts finalized and signed with PhD counterparts.  Mapping pagodas for Semi ACF and census of elderly people in 29 HCs of Prey Chhor and Tbong Khmum ODs was completed.  51 Semi ACF were conducted in pagodas and mosques in period of Oct 2015 to Mar 2016.	<b>Met</b>	

Increased MDR TB case finding among presumptive MDR TB high risk population	3.1.2	<ul style="list-style-type: none"> <li>- Subcontract with Cambodia Health Committee (CHC) developed and signed</li> <li>- Develop a tool to capture the eligible cases (presumptive MDR-TB patients) that have been identified and failed to be reported /referred to diagnosis sites</li> </ul>	<ul style="list-style-type: none"> <li>- Referral of at least 260 presumptive MDR TB (per quarter, from Q2 onward) to diagnosis sites</li> <li>- Monitoring the referral of presumptive MDR TB patients under CTB coverage areas and ensure that reach diagnosis sites, from Q2 onward</li> </ul>	<ul style="list-style-type: none"> <li>- Review the current operation mechanism of MDR-TB implementation to minimize the cost.</li> <li>- Review the performance particularly on the referral of MDR suspects and active case finding for MDR TB</li> </ul>	<ul style="list-style-type: none"> <li>- 800 presumptive MDR TB under CTB coverage areas referred for testing</li> <li>- Tools to track referral developed</li> </ul>	<p><b>Accomplished</b> Subcontract with CHC was complete, in Jan 2016.</p> <p>An integrated checklist was developed to capture eligible presumptive MDR TB patients (integrated into supervision checklist).</p> <p><b>Not Accomplished</b> 71 presumptive MDR TB patients referred for MDR testing.</p>	<b>Partially met</b>	Please see more details in “Technical/administrative challenges and actions to overcome” section, page 5.
Childhood TB Strategy	3.1.3	<ul style="list-style-type: none"> <li>- On site coaching to 21 RHs and to at least 100 HCs of the 21 ODs every quarter</li> <li>- work with Quality Health Services, a USAID funded project to develop joint supervision plans throughout the year</li> <li>- Provide technical support to ECH throughout the years</li> </ul>	On site coaching to additional 100 HCs of the 21 ODs	On site coaching to additional 100 HCs of the 21 ODs	<p>Total 21 ODs which cover 316 HCs will implement CTB Childhood TB activities.</p> <ul style="list-style-type: none"> <li>- 21 RHs and at least 300 HCs received on site coaching</li> </ul>	<p><b>Accomplished</b> Discussion with ECH on how the two partners work together and how TA will be provided to ECH throughout the year.</p> <p>Joint supervisions were made between CTB and ECH in order for ECH to learn from CTB activities.</p> <p>93% HCs (187/200)received coaching through supportive supervision (Q1+Q2=37 + 150 HCs).</p>	<b>Met</b>	
CTB Hospital engagement strategy	3.1.4	<p>Implementation of hospital engagement in existing 5 hospitals</p> <ul style="list-style-type: none"> <li>- Providing on-the job coaching to supported hospitals, throughout the year</li> </ul>		Internal review of hospital engagement activities and Document on “what works, what doesn’t work and	5 hospitals implemented hospital engagement	<p><b>Accomplished</b></p> <ul style="list-style-type: none"> <li>- The five existing hospitals have implemented hospital engagement for TB control.</li> <li>- CTB provided TA to relevant hospital staff via supportive supervision</li> </ul>	<b>Met</b>	

				why”				
TB Control in prison	3.2.1	<ul style="list-style-type: none"> <li>- 10 prisons implemented TB screening at entry, throughout the year</li> <li>- Developed transition plan and discuss with CENAT and General Department of Prison (GDP), and other partners on transition.</li> <li>- Conducted 10 Quarterly meetings with all 10 prisons</li> </ul>	<ul style="list-style-type: none"> <li>- Tracked the progress of transition plan</li> <li>- Conducted additional 10 Quarterly meetings with all 10 prisons</li> </ul>	Conduct annual ACF in 10 prisons	<ul style="list-style-type: none"> <li>- ACF conducted in 10 prisons</li> <li>- Successfully hand over the TB activities in prisons to CENAT and partners</li> </ul>	<p><b>Accomplished</b></p> <ul style="list-style-type: none"> <li>- CTB informed/discussed transition plan with focal persons of national TB program and raised in quarterly coordination meeting. Q1</li> <li>- Quarterly coordination meetings were conducted in nine prisons in period of Jan-Mar 2016.</li> </ul> <p>CTB has informed CENAT director on the transition of TB control activities in prison. It was observed that the director of CENAT was disappointed as there is no other funding to continue the support.</p> <p>CTB has discussed with other partners including Caritas if they have possibility to carry on the TB activities. None of partners has been committed.</p>	<b>Met</b>	
TB Control in prison	3.2.2	Monitor the performance of new inmate screening via supervision and data review, throughout the year		Review of new inmate screening system	<ul style="list-style-type: none"> <li>- New inmate screening system in place</li> <li>- Review of the tracking system and systematic screening</li> </ul>	<p><b>Accomplished</b></p> <p>Monitoring on performance of new inmate screening was conducted and associated data were reviewed.</p> <p>All new inmates 1,339 (Q1: 964 + Q2: 375) were screened, of which 4 were found to have active TB, of the four, one is MDR TB</p>	<b>Met</b>	

						patient.		
PMDT: TA to Local partner, CHC	3.2.3	<ul style="list-style-type: none"> <li>- All CHC technical staff available to support all MDR sites.</li> <li>-Joint supervision between CTB and CHC to at least another additional 5 MDR TB sites in each quarter,</li> <li>- Conduct home visit to all patients at least once a month</li> </ul>	<ul style="list-style-type: none"> <li>- Monitor performance activities implemented by CHC to ensure that all MDR TB cases have enabled support, from Q2 onward</li> </ul>		<ul style="list-style-type: none"> <li>- All MDR TB patients received DOTs supported and visited by DOTs watchers on a regular basis, by HC at every month and regularly visited by CHC at least every quarter</li> <li>- All 10 MDR-TB sites have monitored by Joint team.</li> </ul>	<p><b>Accomplished</b> Joint supervision has been done by CTB and CHC staff.</p> <p>Monitoring the performance of CHC was made by CTB.</p>	<b>Met</b>	
PMDT: Enablers	3.2.4	<ul style="list-style-type: none"> <li>- Provide living support and transportation support to 175 MDR TB patients to visit hospitals per scheduled appointment, throughout the year</li> <li>-Work with project Social Health Protection, a USAID funded to pilot financial support to the poor throughout the year</li> </ul>			<ul style="list-style-type: none"> <li>- Necessary lab tests support for MDR TB patients</li> <li>- 175 patients get support and quarterly consultation at hospital</li> </ul>	<p><b>Accomplished</b> The subcontract with CHC is effective between Jan-Sep 2016. Before this period, CHC was the sub-recipient of GFATM, therefore support was being provided via GFATM.</p> <p>CTB had discussed several times with SHP project on the mobilization of resource.</p> <p>181 MDR TB get monthly living support.</p> <p>101 DR-TB patients (35 female) under treatment at community got medical consultation at MDR-TB treatment site while other patients were visited by physicians at home.</p>	<b>Met</b>	

						72 patients got transportation support while the others were not provided due to living close to the hospitals.		
PMDT: Community TB Care	3.2.5	- Conduct health check-ups and clinical monitoring to 175 MDR TB patients, from Q1 onward- Provide injection/drugs to 175 MDR TB patients on daily basis, throughout the year	- Joint home visit between CTB and HC/OD to DOTS workers and patient, at least one per quarter, from Q2 onward		175 MDR TB patients get regular clinical monitoring and DOTS treatment	<b>Accomplished</b> - Joint home visit between CTB, CHC and HC/OD staff to visit 4 DR-TB patients under treatment at communities and DOT workers.  - 181 MDR TB patients got health check-up and clinical monitoring on a regularly basis.	<b>Met</b>	

#### Sub-objective 4. Targeted screening for active TB

Planned Key Activities for the Current Year	Activity #	Planned Milestones				Milestone status	Milestone met? (Met, partially, not met)	Remarks (reason for not meeting milestone, actions to address challenges, etc.)
		Oct-Dec 2015	Jan-Mar 2016	Apr-Jun 2016	Year end			
Implementation of contact investigation (CI) (household and neighbor contact) (including children)	4.1.1	- CI implemented in 316 HC of 21 ODs, from Q1 onward. - Share tools and materials to ECH for the implementation of CI. - Provided technical support to ECH as needed throughout the year	Monitoring support and coaching on CI to all HCs of 21 ODs in every quarter	Review CI tools	- CI implement in 262 HCs (21 ODs) - CI tool review	<b>Accomplished</b> - 648 (Q1: 469 + Q2: 139) CI were conducted in reporting period of Oct 2015 to Mar 2016.  - CI tools were shared and used by ECH who implement CI in their respective coverage areas under TA from CTB.  - Monitoring support and coaching were conducted to CTB HC supported sites.	<b>Met</b>	
TB Control in Prison	4.1.2	CI made in cell where TB positive case found	Monitored the progress of		- 10 prisons under CTB	<b>Accomplished</b> - Xpert testing for	<b>Met</b>	

		in all 10 prisons, throughout the year	activities, tracked number of smear positive patients and CI conducted, from Q2 onward		conducted CI - Contact investigation conducted of all smear positive TB index	bacteriologic confirmation for CI activity in prison was used. 12 (Q1: 5 + Q2: 7) CI conducted in cells (12 index found to have bacteriologically confirmed through routine screening). Among these 12 CI, no additional TB cases were identified.  - 395 (Q1: 260 + Q2: 135) prisoners were identified as presumptive TB patients through routine screening. Of those, 16 (Q1:8 + Q2:8) inmates were diagnosed with TB (12 bacteriologically confirmed and 4 clinically diagnosed). Of the 16, one found as MDR TB patient.		
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### Sub-objective 5. Infection control

Planned Key Activities for the Current Year	Activity #	Planned Milestones				Milestone status	Milestone met? (Met, partially, not met)	Remarks (reason for not meeting milestone, actions to address challenges, etc.)
		Oct-Dec 2015	Jan-Mar 2016	Apr-Jun 2016	Year end	Oct 2015-Mar 2016		
TB-IC implementation in hospitals, prisons and community	5.1.1	- Developed an instruction for TB IC (basic administrative and environmental measure) for health facility level align with the national TB IC SOP - Had discussions with the director of hospital/prisons and staff on the administrative	- Baseline assessment on administrative and environmental TB-IC measure and practice conducted in selected 29 health facilities - Modified TB IC checklist for	Implementation of TB IC) at community level under 29 HCs , from Q3 onward	- 15 facilities (RH and Prisons) implement TB IC, and TB IC at community level implemented under 29 HCs under CTB coverage - Report on the	<b>Accomplished</b> Proper patient flow for cough triage among OPD patients has been implemented in five referral hospitals. The airflow at the general triage areas of those five hospitals is adequate.  Basic TBIC was discussed with key persons in	<b>Met</b>	

		procedure for TB-IC at 10 prisons and 5 hospitals	community level and used the modified checklist - Implementation of TB IC in 15 facilities (RH and Prisons), from Q2 onward		baseline assessment	hospitals and 10 prisons including hospital directors of five hospitals.  TBIC Baseline assessment tools & TB IC checklist for community (HC) was modified.  The baseline assessment tools have been piloted in one RH and 5 HCs and CTB will scale-up to all the selected 29 HCs and one more RH in Prey Chhor.  TB IC interventions have been starting in 5 HCs, 1 RH and 10 prisons.		
TB screening among HCW screening in hospital	5.2.1	Discussion with NTP and hospital directors on TB screening among HCW	- Identified and selected 2 hospitals for TB screening - Enrolled HCWs for TB screening	TB screening among 250 HCW in selected hospitals	Report on TB screening among HCW	<b>Accomplished</b> Discussion with relevant partners was made with regard to TB screening among HCW. CTB planned to screen HCW in Korng Pisey and Kampong Speu hospitals in June. It was agreed that a similar screening algorithm will be used at those hospitals. All HCW will be screened by CXR. If CXR is abnormal, then request for sputum for Xpert test.	<b>Met</b>	Upon further discussion with relevant NTP staff, the TB screening among health care workers will be implemented in Battambang provincial hospital where the number of health staff is about 250. The enrollment of HCWs will be made after a detail discussion with the hospital director, to be held in April after Khmer New Year.

#### Sub-objective 6. Management of latent TB infection

Planned Key Activities for the Current Year	Activity #	Planned Milestones				Milestone status	Milestone met? (Met, partially,	Remarks (reason for not meeting milestone, actions to address challenges, etc.)
		Oct-Dec 2015	Jan-Mar 2016	Apr-Jun 2016	Year end			

							not met)	
Isoniazid Preventive Therapy (IPT) for children under 5	6.1.1	- IPT activity implemented in 316 HCs of 21 ODs , throughout the year- Monitoring support to IPT implemented sites, throughout the year - Provided technical support to ECH as needed- 570 eligible children enrolled for IPT	- Provided technical support to ECH as needed- 570 eligible children enrolled for IPT	- 570 eligible children enrolled for IPT - Training module on Childhood TB that was developed by KNCV was translated and used for coaching	Total of 316 HCs implemented IPT activities. - 2,300 eligible children enrolled for IPT	<b>Accomplished</b> The IPT activities were implemented in HCs under CTB geographic responsibility.  Forms/tools were instructed and shared with ECH.  <b>Not accomplished</b> There were 597 (Q1: 283 + Q2: 314 children (target at 1,140) with close contact with bacteriologically confirmed TB who were enrolled for IPT (preliminary data, actual data will be higher than this figure).	<b>Partially met</b>	There are still some parents refusing to have their children enrolled in IPT.  It was noted that more children were enrolled in IPT this quarter. However, OD and HC need to promote the awareness raising on IPT to communities as needed.

### Sub-objective 7. Political commitment and leadership

Planned Key Activities for the Current Year	Activity #	Planned Milestones				Milestone status	Milestone met? (Met, partially, not met)	Remarks (reason for not meeting milestone, actions to address challenges, etc.)
		Oct-Dec 2015	Jan-Mar 2016	Apr-Jun 2016	Year end	Oct 2015-Mar 2016		
National strategic plan on TB control finalized	7.1.1	finalization of NSP on TB control	Reviewed and monitored the response of key strategies	Identify gaps for GFATM application	NSP on TB control fully implemented nationwide Identify gaps for resource mobilization	<b>Accomplished</b> The national TB program has reviewed its key strategies particularly areas that has been funded by both GFATM under new funding model, USAID's grants and others. It was observed that the case notifications were low in drug susceptible and MDR-TB in year 2015. CENAT	<b>Met</b>	

						has called for Inter-agency Coordinating Committee meeting with partners to present the activities and discuss results.		
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### Sub-objective 8. Comprehensive partnerships and informed community involvement

Planned Key Activities for the Current Year	Activity #	Planned Milestones				Milestone status	Milestone met? (Met, partially, not met)	Remarks (reason for not meeting milestone, actions to address challenges, etc.)
		Oct-Dec 2015	Jan-Mar 2016	Apr-Jun 2016	Year end	Oct 2015-Mar 2016		
Key staff of CTB be a member of Cambodia Coordinating Committee (CCC) and Principal Recipient of Technical Review Panel (PRTRP) of GF	8.2.1	CTB staff attended CCC and quarterly PRTRP meetings and provided inputs on both technical and financial areas	Evaluated GFATM implementation and provided input to improve quality and progress toward targets with the goal to improve GFATM ratings	Continue to provide inputs on implementation, progress toward targets	GFATM performance rating maintained at "A" level	<b>Accomplished</b> Technical input was given to CCC and PRTRP meeting. Questions were raised on the decline of total TB case notifications on both drug susceptible and MDR-TB. It was observed that a majority of the Sub-recipients do not understand the concept of the approaches that need to be implemented. It was difficult to implement the approach in terms of intensification of case findings and sputum transport.	<b>Met</b>	

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

Planned Key Activities for the Current Year	Activity #	Planned Milestones				Milestone status	Milestone met? (Met, partially, not met)	Remarks (reason for not meeting milestone, actions to address challenges, etc.)
		Oct-Dec 2015	Jan-Mar 2016	Apr-Jun 2016	Year end	Oct 2015-Mar 2016		
Drug Resistance Surveillance	10.2.1	Development of technical working group to assist in	Drafted the protocol	Near-final draft of DRS distributed to	Drug Resistance Survey	<b>Accomplished</b> - Draft of the drug resistant survey has been	<b>Met</b>	

		preparation of protocol		TWG and circulated for comments	initiated	developed. - CTB was asked to provide the support on the laboratory assessment and the preparation for survey. CTB has contracted with the consultant and seek approval from the mission.		
Operational Research	10.2.2	Two OR protocols and tools developed	Data collection of both ORs	-Data analysis of OR number 1 -Discuss the findings -Prepare reports of OR number 1	- OR report in draft (OR 1) - Preliminary findings for OR 2.	<b>Accomplished</b> One OR protocol has been developed and submitted for ethics approval.  <b>Not accomplished</b> - Data collection was not done and still awaiting final approval from FHI 360's ethics committee. - Another protocol is in the process of been developed and will submit to ethics approval.	<b>Partially met</b>	- Delay of protocol development is due to unavailable consultant and competition of priority with other activities. - Another issue of the delay of the implementation is a need for a full board review of institutional research board as this a cluster control trial.
Internal Data Quality Improvement (IDQI) at OD and HC levels	10.2.3	Implementation of IDQI in 65 HCs in 9 ODs	Implementation of IDQI in additional 65 HCs in 9 ODs	-Monitor/ conduct spot check to IDQI at HC level conducted by OD TB supervisors - conduct internal review on recording and reporting at OD and HC level	- Implementation of IDQI in 15 ODs - draft report of the review	<b>Accomplished</b> - IDQI has been conducting in 104 HCs which is above the target. However, only 80% of visits planned to HC target in Q1 and Q2.  <b>Not accomplished</b> - In Q1 and Q2, 20% of target HCs need to be implemented according to the planned visits.	<b>Partially met</b>	- Delay implementation in quarter 1. - Intensify the data auditing activity in Q3 to meet the target.

Sub-objective 11. Human resource development								
Planned Key Activities for the Current Year	Activity #	Planned Milestones				Milestone status	Milestone met? (Met, partially, not met)	Remarks (reason for not meeting milestone, actions to address challenges, etc.)
		Oct-Dec 2015	Jan-Mar 2016	Apr-Jun 2016	Year end	Oct 2015-Mar 2016		
Provide capacity building to C-DOT volunteers, health center and OD staff especially to those who are new or replaced turnover staff via supportive supervision	11.1.1	- Monitored and followed up after the training to ensure the quality of performance after training - At least 80 supportive supervisions conducted	At least 80 supportive supervisions conducted	At least 80 supportive supervisions conducted	- Monitoring and coaching conducts according to monitoring plan - 3,930 persons received training/coaching - 322 supportive supervisions conducted	<b>Accomplished</b> - 172 Supportive supervisions to the field after training were conducted on a regular basis. - Supportive supervisions were performed to ensure the quality of performance, for example to see whether TB diagnosis was corrected and aligned with national guideline, type of patient was correctly categorized, treatment regimen was corrected provided, clinical monitoring and sputum follow up was performed.	<b>Met</b>	

### 3. Challenge TB's support to Global Fund implementation in Year 2

#### Current Global Fund TB Grants

Name of grant & principal recipient (i.e., TB NFM - MoH)	Average Rating*	Current Rating	Total Approved Amount	Total Disbursed to Date	Total expensed (if available)
New fund model (NFM) Cambodia TB (Year of signing: 2015 and PR: CENAT)**	A2	A1	\$15,664,272	\$5,715,992 (As of April 26 <sup>th</sup> , 2016)	Not available

\* Since January 2010\*\* [http://www.aidspan.org/country\\_grant/KHM-T-CENAT](http://www.aidspan.org/country_grant/KHM-T-CENAT)

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

The Global Fund (GF) and Ministry of Health were able to resolve last year's bottleneck of suspension of all supervision because of the issue of "hotel receipts". Supervision activities from central, provincial and OD have resumed based on the series of discussion between principal recipient CENAT and GF. Global Fund requires CENAT to provide the travel plan of their supervision activities and submitted to GF for the approval. The supervision activity resumed in January 2016.

#### Challenge TB & Global Fund - CTB involvement in GF support/implementation, any actions taken during this reporting period

The CTB member met the Global Fund's new Fund Portfolio Manager three times in Quarter 2 to brief her about the challenges and potentials of the National TB Program of Cambodia. Key discussions focused on:

- Ways to find the missing cases using four-symptom and four-risk screening approach followed by X-ray screening and Xpert, or even Xpert directly among those at highest risk for TB. Those people include elderly adults aged equal to or above 55, people living with HIV, diabetic patients and close contacts. CENAT has developed an algorithm to screen for TB among individuals who have one or more of the four symptoms (cough, fever, night sweat and weight lost).
- There is a need to change country mindset from a TB control to TB elimination mode. One option is to *set more challenging targets* as a way to influence them to identify new approaches to address the current situation or challenges.
- A need for using the strong mechanism of health equity funds for greater patient-centered care.
  - **Action taken:** CTB continues discussing with USAID's grantee, Social Health Protection, which is implemented by University of Research Company, to identify ways to support patients in term of transportation and any cost related for patient care.

- A need to decentralize the authority to the provincial level on budget management and accountability to reduce some of the bottlenecks of money flow. The use of electronic payment is able to ensure accountability but is not able to solve the issue of delays in payments to the field staff. The issue of delay of payment to field staff comes about because field staff use their own funds to send (refer) sputum specimens of MDR TB patients to the appropriate laboratory. However, the reimbursement mechanism for staff is very complicated, requiring many forms to be filled and when there are mistakes, there are no user-friendly instructions or help. This often results in the need for staff to come to Phnom Penh for clarification on those documents, but then they are not reimbursed for the transportation support required for them to come for clarification. This means they pay out of their own pocket money first for the patient, and then again when they try to get reimbursement. As consequence, staff members are less and less motivated to facilitate sputum transport for testing for MDR.
  - **Action taken:** CTB will continue to follow up and discuss with GFATM if that authority delegation can be implemented. If the case notification of MDR-TB still continue to drop, GF should consider to re-discuss with CENAT to reconsider this.

## 4. Success Stories – Planning and Development

<b>Planned success story title:</b>	<b>Life Save via TB Screening at TB Patients' Household</b>
<b>Sub-objective of story:</b>	3. Patient-centered care and treatment
<b>Intervention area of story:</b>	3.1. Ensured intensified case finding for all risk groups by all care providers
<b>Brief description of story idea:</b>	Contact investigation was conducted in one household of an index case. One of the poor couples, who is a neighbor, suspected that she may have active TB also. She asked a HC staff to be screened for TB. They agreed to screen her. As a result, she and her husband were found to have active TB.
<b>Status update: finalized and submitted</b>	

## 5. Quarterly reporting on key mandatory indicators

**Table 5.1 MDR-TB cases detected and initiating second line treatment in country (national data)**

Quarter	Number of RR-TB or MDR-TB cases detected (3.1.4)	Number of MDR-TB cases initiating second-line treatment (3.2.4)	Comments:
Total 2011	56	83	
Total 2012	117	110	
Total 2013	131	121	
Total 2014	121	110	
Total 2015	77	75	
Jan-Mar 2016	Data not available	29	
Apr-Jun 2016			
Jul-Aug 2016			
To date in 2016			

**Table 5.2 Number of pre-/XDR-TB cases started on bedaquiline (BDQ) or delamanid (DLM) (national data)**

Quarter	Number of pre-/XDR-TB cases started on BDQ nationwide	Number of pre-/XDR-TB cases started on DLM nationwide	Comments:
Total 2014	NA	NA	Cambodia does not use this regimen.
Total 2015	NA	NA	
Jan-Mar 2016	NA	NA	
Apr-Jun 2016			
Jul-Aug 2016			
To date in 2016			

**Table 5.3 Number and percent of cases notified by setting (i.e. private sector, prisons, etc.) and/or population (i.e. gender, children, miners, urban slums, etc.) and/or case finding approach (CI/ACF/ICF) (3.1.1)**

		Reporting period					Comments
		Oct-Dec 2015	Jan-Mar 2016	Apr-Jun 2016	Jul-Sept 2016	Cumulative Year 2	
Overall CTB geographic areas	TB cases (all forms) notified per CTB geographic area ( <i>List each CTB area below - i.e. Province name</i> )						
	Battambang (3 ODs) – FULL <sup>1</sup>	496	467				
	Kampot (1 OD) - CHILDHOOD <sup>2</sup>	1	3				
	Kampong Cham (4 ODs) – 1 FULL and 3	58	70				

<sup>1</sup> “FULL” means there are the activities of Community Directly Observed Treatment and Childhood TB

<sup>2</sup> “CHILDHOOD” means there is only the activity of childhood TB

	CHILDHOOD					
	Kampong Chhnang (2 ODs) - CHILDHOOD	25	1 (preliminary data, actual data be higher than this figure).			
	Kampong Speu (2 ODs) – FULL	377	368			
	Kampong Thom (1 OD) – CHILDHOOD	4	6			
	Prey Veng (5 ODs) – CHILDHOOD	132	129			
	Pursat (2 ODs) – FULL	265	233			
	Svay Rieng (1 OD) – CHILDHOOD	42	Data not available			
	Tbong Khmum (1 OD) – FULL	23	30			
	TB cases (all forms) notified for all CTB areas	1,423	1,307 (preliminary data, actual data be higher than this figure).			
	All TB cases (all forms) notified nationwide (denominator)	7,986	NA			
	% of national cases notified in CTB geographic areas	18%				
Intervention (setting/population/approach)						
Children (0-14)	CTB geographic focus for this intervention	See list above				
	TB cases (all forms) notified from this intervention	444	368 (preliminary data, actual data be higher than this figure).			
	All TB cases notified in this CTB area (denominator)	1,423	1,307			
	% of cases notified from this intervention	31%	28%			
	CTB geographical areas: Five hospitals Battambang, Moung Russey, Sampove Meas, Kampong Speu and Korng Pisey					
Intensified case finding (ICF) (e.g. health facility- based case finding)	TB cases (all forms) notified from this intervention	238	190			
	All TB cases notified in this CTB area (denominator)	1,021	937			
	% of cases notified from this intervention	23%	20%			

## 6. Challenge TB-supported international visits (technical and management-related trips)

#	Partner	Name of consultant	Planned quarter				Specific mission objectives	Status (cancelled, pending, completed)	Dates completed	Duration of visit (# of days)	Additional Remarks (Optional)
			Q 1	Q 2	Q 3	Q 4					
1	FHI360	Camille Saade			x		Reviewed the previous approach, provided recommendations and fine-tuning of the PPM model. The project mainly works with pharmacists and private providers at clinics.	Pending			The mission recently approved to hire the consultant. CTB had contacted well recognized PPM expert. Mission postponed from Q1 to Q3.
2	FHI360	TBD					Develop an operation guideline for laboratory microscopy, expert, culture and DST.	Cancelled			This activity has not been approved yet.
3	FHI360	Carol Hamilton				X	1. Support the development of CTB work plan 2. Provide technical support and review the CTB program implementation	Pending			
4	KNCV	Alice Zwerling			x		Impact evaluation of all case finding and treatment outcomes	Pending			Postponed from Q2 to Q3.
5	KNCV	Mamel Quelapio			x		Review the current PMDT approach that CHC implements	Pending			
6	KNCV	TBD				x	Develop Laboratory Guideline on smear microscopy, Xpert, culture and DST	Pending		Postponed from Q1 to Q4	Dr. England is not able to take on the task due to her busy schedule. Terms of Reference are being prepared and will be published soon.
7	WHO	Kerri Viney	x				Development of Operational Research protocol on cluster randomized control trial. Control Arm: Semi Active Case Finding and Contact Investigation versus Intervention Arm: Semi Active	Complete	31 Jan 2016	10 days	

							Case Finding, Contact Investigation and Active Case Finding					
Total number of visits conducted (cumulative for fiscal year)								1				
Total number of visits planned in approved work plan								7				
Percent of planned international consultant visits conducted								14%				

## 7. Quarterly Indicator Reporting

Sub-objective:	1. Enabling Environment					
Performance indicator	Disaggregated by	Frequency of collection	Baseline (timeframe)	End of year target	Results to date	Comments
1.1.3. #/% of public sector/parastatal (what is this?) care facilities that report TB cases to the NTP (stratified by type: military, social security, etc.)	RH, HC	annually	404 (RH=5 Prisons=10; HC=389 )	377 (RH=8; Prison=10; HC=359) (93%)		Report on an annual basis

Sub-objective:	2. Comprehensive, high quality diagnostics					
Performance indicator	Disaggregated by	Frequency of collection	Baseline (timeframe)	End of year target	Results to date	Comments
2.1.2. A current national TB laboratory operational plan exists and is used to prioritize, plan and implement interventions.		annually	0 (2014)	2		Report on an annual basis
2.2.1. #/% of laboratories enrolled in EQA for smear microscopy		annually	NA (2014)	18% (40 /215)		Report on an annual basis
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 (LQMS).		annually	100% 1/1	100% 1/1		Report on an annual basis
2.2.7. Number of GLI-approved TB microscopy network standards met		annually	NE	NE		Report on an annual basis
2.3.1. Percent of bacteriologically confirmed TB cases who		annually	15% 1,975/12,747	17% 2,292/13,413		Report on an annual basis

Sub-objective:	2. Comprehensive, high quality diagnostics					
Performance indicator	Disaggregated by	Frequency of collection	Baseline (timeframe)	End of year target	Results to date	Comments
are tested for drug resistance with a recorded result.						
2.4.2. #/% of Xpert machines that are functional in country (stratified by Challenge TB, other)	CTB	annually	56% (26/46)	100% (46/46)		Report on an annual basis

Sub-objective:	3. Patient-centered care and treatment					
Performance indicator	Disaggregated by	Frequency of collection	Baseline (timeframe)	End of year target	Results to date	Comments
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		quarterly	43,738 (2014)  (6,529 (2014, 9 ODS, CTB supported sites (Baseline by case finding approach will be set in Y2)	40,300 (2016)  (7,200) CTB (~10% increase)	2,730 (76%) Q1=1,423 Q2=1,307  (preliminary data, actual data will be higher than this figure).	
3.1.4. Number of MDR-TB cases detected		quarterly	121(2013)	145	41 (28.3%) Q1=12 Q2=29	There was no supervision from the national TB program to the field due to unapproved travel plan and per diem rate from GFATM. CTB staff will jointly conduct supervision activities with TB supervisors at central or provincial levels to sites to make a correctness on misclassification and refer those patients, develop a feedback mechanism on presumptive MDR TB patients for diagnostic testing.
3.1.8. % of TB cases (all forms) diagnosed among children (0-14)		annually	39% (5,756/15,593; 2014, in 21 ODS)	20% (3,430 /17,152 )	(No data available)	
3.1.10. #/% of prisons conducting regular screening for TB		annually	10 (CTB supported sites)	10 (100%)		Report on an annual basis

<b>Sub-objective:</b>	<b>3. Patient-centered care and treatment</b>					
<b>Performance indicator</b>	<b>Disaggregated by</b>	<b>Frequency of collection</b>	<b>Baseline (timeframe)</b>	<b>End of year target</b>	<b>Results to date</b>	<b>Comments</b>
3.1.11. #/% of prisons conducting screening for TB with chest X-ray		annually	10 (CTB supported sites)	10 (100%)		Report on an annual basis
#/% of new inmates screened		quarterly	320/320 (100%)	400/400 (100%)	1,490/1490 (100%) Q1=964 Q2=526	The project has already surpassed the end of year target and reached 375% at the end of this second quarter.
#/% of new inmates diagnosed with TB		quarterly	0	0.004% (of new inmates screened)	4 (.26%) Q1=3 Q2=1	
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, miners, urban slums, etc.).	CTB	annually	NA (2016)	> 95%  38,290/40,300  (6,840/7,200) CTB		Report on an annual basis
3.2.4. Number of MDR-TB cases initiating second-line treatment		quarterly	121 (2013)	145	41 Q1=12 Q2=29	There was no supervision from the national TB program to the field due to unapproved travel plan and per diem rate from GFATM.
3.2.5. # health facilities w/ PMDT services		quarterly	10	10 (100%)	10	
3.2.6. #/% of presumptive MDR-TB referrals that reach the PMDT site		annually	NA (2016)	95%		Report on an annual basis
3.2.7. Number and percent of MDR-TB cases successfully treated		annually	79% (87/110; 2012)	> 75%		Report on an annual basis
3.2.19. Treatment success rate of TB patients diagnosed in prison	CTB (10 prisons)	annually	92% (2013)	> 92%		Report on an annual basis
3.2.24. % MDR patients who receive social or economic benefits		quarterly	NA (2016)	175	181	

<b>Sub-objective:</b>	<b>4. Targeted screening for active TB</b>
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Performance indicator	Disaggregated by	Frequency of collection	Baseline (timeframe)	End of year target	Results to date	Comments
4.1.1. #/% of eligible index cases of TB for which contact investigations were undertaken	TB index, MDR TB index	quarterly	NA (will be set in 2016)	TBD	64% (705/1104) Q1=80% (469/588) Q2= 236/516	
4.1.2. #/% of children (under the age of five) who are contacts of bacteriologically-confirmed TB cases that are screened for TB		quarterly	NA (will be set in 2016)	TBD	863 Q1= 421 Q2= 442	

Sub-objective:		5. Infection control				
Performance indicator	Disaggregated by	Frequency of collection	Baseline (timeframe)	End of year target	Results to date	Comments
5.1.1. Status of TB IC implementation in health facilities	CTB	annually	2	2		Report on an annual basis
5.1.2. #/% of health facilities implementing TB IC measures with Challenge TB support (stratified by TB and PMDT services)	RH, HC	annually	3.7% 15 /404	4.8% 18 /377		Report on an annual basis
5.2.3. Number and % of health care workers diagnosed with TB during reporting period	CTB	annually	NA (2014)	6/250 (2.5%)		Report on an annual basis
5.2.6. #/% of HCW screened for TB	CTB	annually	NA(2014)	250		Report on an annual basis

Sub-objective:		6. Management of latent TB infection				
Performance indicator	Disaggregated by	Frequency of collection	Baseline (timeframe)	End of year target	Results to date	Comments
6.1.1. Status of implementing LTBI diagnosis and treatment strategies (0=no policy or practice in place; 1=policies have been		annually	2	3		Report on an annual basis

<b>Sub-objective: 6. Management of latent TB infection</b>						
<b>Performance indicator</b>	<b>Disaggregated by</b>	<b>Frequency of collection</b>	<b>Baseline (timeframe)</b>	<b>End of year target</b>	<b>Results to date</b>	<b>Comments</b>
developed/updated; 2=LTBI strategies piloted or implemented in limited settings; 3=LTBI strategies implemented nationally						
6.1.2. % of eligible persons completing LTBI treatment, by key population and adherence strategy	children	Annually	95% (1965/2050) 2013 cohort, March 2015 report	> 95%		Report on an annual basis
6.1.11. Number of children under the age of 5 years who initiate IPT		quarterly	2,300 NTP report March 2015	2,300	597 Q1= 283 Q2= 317 (preliminary data, actual data will be higher than this figure).	

<b>Sub-objective: 7. Political commitment and leadership</b>						
<b>Performance indicator</b>	<b>Disaggregated by</b>	<b>Frequency of collection</b>	<b>Baseline (timeframe)</b>	<b>End of year target</b>	<b>Results to date</b>	<b>Comments</b>
7.1.2. Status of NSP development: 0=The NSP is expired or not being implemented; 1=An updated/new NSP is being drafted; 2=NSP has been developed and costed; 3=NSP has been finalized, endorsed by the government and implemented		annually	3	3		Report on an annual basis
7.2.3. % of activity budget covered by private sector cost share, by specific activity		annually	NA (2014)	NA		Report on an annual basis

<b>Sub-objective: 8. Comprehensive partnerships and informed community involvement</b>						
<b>Performance indicator</b>	<b>Disaggregated by</b>	<b>Frequency of collection</b>	<b>Baseline (timeframe)</b>	<b>End of year target</b>	<b>Results to date</b>	<b>Comments</b>

<b>Sub-objective: 8. Comprehensive partnerships and informed community involvement</b>						
<b>Performance indicator</b>	<b>Disaggregated by</b>	<b>Frequency of collection</b>	<b>Baseline (timeframe)</b>	<b>End of year target</b>	<b>Results to date</b>	<b>Comments</b>
8.1.3. Status of National Stop TB Partnership		annually	0 (not exist until present)	NA		Report on an annual basis
8.1.4. % of local partners' operating budget covered by diverse non-USG funding sources		annually	0 (2014)	79% (1.46M/1.85M)		Report on an annual basis
8.2.1. Global Fund grant rating		annually	A	A2		Report on an annual basis

<b>Sub-objective: 9. Drug and commodity management systems</b>						
<b>Performance indicator</b>	<b>Disaggregated by</b>	<b>Frequency of collection</b>	<b>Baseline (timeframe)</b>	<b>End of year target</b>	<b>Results to date</b>	<b>Comments</b>
9.1.1. Number of stock outs of anti-TB drugs, by type (first and second line) and level (ex, national, provincial, district)		annually	0 (2014)	NA		Report on an annual basis

<b>Sub-objective: 10. Quality data, surveillance and M&amp;E</b>						
<b>Performance indicator</b>	<b>Disaggregated by</b>	<b>Frequency of collection</b>	<b>Baseline (timeframe)</b>	<b>End of year target</b>	<b>Results to date</b>	<b>Comments</b>
10.1.4. Status of electronic recording and reporting system		annually	2 (2014)	2		Report on an annual basis
10.2.1. Standards and benchmarks to certify surveillance systems and vital registration for direct measurement of TB burden have been implemented		annually	No (2014)	TBD		Report on an annual basis
10.2.3. DR-TB surveillance survey conducted/completed in the last 5 years		annually	No	Yes		Report on an annual basis
10.2.4. #/% of operations research, evaluation or		annually	0 (2014)	2 (100%)		Report on an annual basis

<b>Sub-objective:</b>	<b>10. Quality data, surveillance and M&amp;E</b>					
<b>Performance indicator</b>	<b>Disaggregated by</b>	<b>Frequency of collection</b>	<b>Baseline (timeframe)</b>	<b>End of year target</b>	<b>Results to date</b>	<b>Comments</b>
epidemiological assessment study results disseminated (stratified by level of dissemination: report, presentation, publication)						
10.2.6. % of operations research project funding provided to local partner (provide % for each OR project)		annually	NA	11% (16K/146K)		Report on an annual basis
10.2.7. Operational research findings are used to change policy or practices (ex, change guidelines or implementation approach)		annually	NA	NA		Report on an annual basis

<b>Sub-objective:</b>	<b>11. Human resource development</b>					
<b>Performance indicator</b>	<b>Disaggregated by</b>	<b>Frequency of collection</b>	<b>Baseline (timeframe)</b>	<b>End of year target</b>	<b>Results to date</b>	<b>Comments</b>
11.1.2. % of planned supervisory visits conducted (stratified by NTP and Challenge TB funded)		quarterly	69% (91/132 ) (CTB)	322 /322 (100%) (CTB)	172 visits (53,4%) Q1= 86 (80 visits planned) Q2= 86	
11.1.3. # of healthcare workers trained, by gender and technical area	CTB	quarterly	NA	3,935	1,204 (30.3%) (F= 342) Q1= 455 (F=182) Q2= 749 (F= 160)	
11.1.5. % of USAID TB funding directed to local partners	CTB	annually	NA (will be collected in 2016)	18% (400K/2.2M)		Report on an annual basis

Annex 1: Posters

## របៀបស្រង់កំហាកមានគុណភាព

១ ខ្ពស់សំអាតមាត់ជាមុន → ២ ដកដង្ហើមចេញចូលវែងៗ អោយបានយ៉ាងតិច៣ដង → ៣ ប្រឹងក្អកអោយខ្លាំង រួចខាតកំហាក ដាក់កំប៉ុងកំហាក និងបិទគំរប់ អោយបានជិតល្អ

The title of this poster is “how to collect good quality of sputum”

## ប្រសិនបើអ្នកមានរោគសញ្ញាណាមួយដូចខាងក្រោម សូមទៅស្រាវជ្រាវរក ជម្ងឺរបេង ជាបន្ទាន់!

The title of this poster is “if you have any symptoms below, please go for TB screening”