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**TB CARE I**

# **TB CARE I - Cambodia**

**Year 3  
Quarterly Report  
April - June 2013**

**July 30 , 2013**

## Quarterly Overview

<b>Reporting Country</b>	<b>Cambodia</b>
<b>Lead Partner</b>	<b>JATA</b>
<b>Collaborating Partners</b>	<b>FHI360, KNCV, MSH, WHO</b>
<b>Date Report Sent</b>	
<b>From</b>	Jamie Tosing
<b>To</b>	Chantha Chak
<b>Reporting Period</b>	<b>April - June 2013</b>

<b>Technical Areas</b>	<b>% Completion</b>
1. Universal and Early Access	67%
2. Laboratories	63%
3. Infection Control	83%
4. PMDT	65%
5. TB/HIV	75%
6. Health Systems Strengthening	75%
7. M&E, OR and Surveillance	45%
<b>Overall work plan completion</b>	<b>68%</b>

### Most Significant Achievements

During this quarter, annual mass screening of prisoners was conducted in three prisons -Svay Rieng, Prey Veng and Kg Cham. 1,588 prisoners were screened using an algorithm which includes symptom checklist, chest x-rays, smear microscopy, and Xpert MTB/RIF assays. 38 (2.4%) prisoners were diagnosed with active TB disease and initiated on treatment.

The pilot SMS alert system continues to show sustained improvements, maintaining a turnaround time of less than 5 days to deliver sputum test results since July 2012 (see chart in section 6). An evaluation of the existing system was initiated to assess the effectiveness of the TB SMS alert system in reducing diagnostic and treatment delays, the result of which is expected to be available by September 2013. In addition, staff of the remaining health centres in the project sites (23 HCs in two ODs) were trained during the quarter and will begin to use the improved SMS system which will enable HC and lab staff to send SMS out in a package instead of individual text messages.

TB CARE I has made intensive effort to improve diagnosis of childhood TB including through development and introduction of new diagnostic algorithms to promote the use chest x-rays for pulmonary TB diagnosis, organizing a series of trainings, and follow-up supervision at sites. Data collected during the quarter indicate improvement in diagnostic practices. 3,183 children suspected of TB were referred from health centers to referral hospital for diagnosis, 500 of whom were diagnosed with TB. Of the 500 TB cases, 97 (19%) were classified as pulmonary TB and 403 (81%) as extra-pulmonary TB. In the past, around 96% of all childhood TB cases were extrapulmonary TB, mainly clinically diagnosed cervical lymphadenitis.

Ongoing supervision and on-the-job training are being conducted to cover all 24 provinces and at least six MDR-TB treatment sites every quarter. At least 10 DR-TB patients receiving treatment in the community are visited by national supervisors to monitor the effectiveness of the program implementation and quality of care. Nursing officers and physicians of CHC (NGO) visit every DRTB patient at their home every 15-30 days.

To assist with development of the new National Strategic Plan for TB control (2014-2020), Dr Paul Nunn visited the country twice, facilitated a consultation workshop, and met with all stakeholders. This new plan will help the country for resource mobilization from all possible funding sources, particularly from the new funding mechanism of the Global Fund. The new plan incorporates new evidences on effective implementation strategies.

### **Overall work plan implementation status**

Overall progress in work plan implementation is satisfactory at 68% against the target of 75% for this period. Two activities have been cancelled (1.1.5 and 7.3.2) but will be performed during APA4, while one activity has been discontinued (7.2.1). Other activities which have been delayed or postponed are expected to catch up in the last remaining quarter.

### **Technical and administrative challenges**

Establishing a mechanism for TB-Diabetes collaboration has proved to be challenging - firstly to obtain buy-in from the large national hospitals who function autonomously, and the time needed for setting up a new collaborative working mechanism between two entities of the MoH - Department of Preventive Medicine (PMD) and the National Center for TB and Leprosy Services (CENAT).

Operational research studies planned have taken much longer time than anticipated because of the time required for protocol approvals and other engagement of trainees with their on-going job responsibilities. However, two studies initiated in APA2 (elderly TB and enhanced referral strategy) are expected to be completed during this fiscal year.

## Quarterly Activity Plan Report

1. Universal and Early Access			Activity Leader	Approved Budget	Cumulative Technical Completion	Planned Completion		Cumulative Progress and Deliverables up-to-date
Outcome	Activity #	Activity				Month	Year	
1.1 Increased demand for and use of high quality TB services and improve the satisfaction with TB services provided (Population/Patient Centered Approach)	1.1.1	Active case finding (ACF): elderly	WHO	68,916	 25%	Sep	2013	Ongoing preparations to perform TB screening among the elderly in two Operational Districts in Takeo Province in collaboration with local supervisors, health centre workers and community volunteers.
	1.1.2	Active case finding (ACF): Diabetes	FHI360	14,802	 75%	Sep	2013	In previous quarters, several hospitals were visited to assess current practices related to TB and diabetes management, a working group comprising staff from CENAT and the Department of Preventive Medicine (DPM) was formed, and advocacy meetings were held with PHD/OD and hospital management teams of selected sites. This quarter, recording and reporting tools for the project were developed and field tested, and initial trainings for hospital staff were conducted in June in three provincial hospitals-- Battambang (17 participants, 7 females), Pursat (18 participants, 5 females), and Kampong Cham (18 participants, 3 females) to improve linkages between the OPD and the TB and Diabetes clinics within the hospitals.
	1.1.3	Patient Centered Approach (PCA)	WHO	44,545	 50%	Sep	2013	On-going preparations to implement Quote TB Light and Patient's Charter in five hospitals of various levels and locations (Phnom Penh, Takeo, and Kampong Speu). Orientation workshop was organized for 42 participants (8 females) on June 13 at CENAT/Phnom Penh, followed by a TOT conducted on 20-21 Jun 2013 also at Phnom Penh, with participation of 10 staff (6 females) from CENAT, CHC and others.

1.1.4	Quality Improvement (QI)	FHI360	36,863	 75%	Sep	2013	<p>During the quarter, QI model was expanded from the existing 19 sites to 6 additional health centres (HC) in Kampong Cham and Chamkar Leu ODs. The change package being introduced to the additional HCs includes the following elements : (i) establishing a mechanism to compare notes on patient referrals and arrivals with systematic follow-up of those patients who do not report to the HC; (ii) joint review of HC performance by all stakeholders (DOT watchers, private practitioners and commune councils) on a regular basis; (iii) advocating for commune council members to cover transportation cost for TB suspects; (iv) developing a plan for identification and referral of TB suspects. In addition, these new sites will engage Achars (religious laymen) of some Pagodas to provide health education and use religious events in the Pagodas to identify and refer TB suspects to the HCs. This QI model will be expanded to all 38 HCs in Kampong Cham and Chamkar Leu ODs in the next quarter.</p>
1.1.5	TB screening manual	FHI360	10,067	Cancelled			<p>This deliverable was linked to a core project (to develop a manual for TB screening) which was not approved. Planned activity in-country was to document Cambodia's experience on screening of risk groups as a case study for the manual.</p>

Outcome	Activity #	Activity	Activity Leader	Approved Budget	Cumulative	Month	Year	Cumulative Progress and Deliverables up-to-date
1.2 Increased quality of TB services delivered among all care providers (Supply)	1.2.1	Childhood TB services: expand to 27 ODs	JATA	177,879	 75%	Sep	2013	<p>TBCARE I and CENAT conducted a series of trainings to improve childhood TB diagnosis including through the use of new algorithms. Participants were TB physicians from hospitals of the 10 ODs where this activity is being expanded. The first course was clinical and managerial training which was conducted on 1-2-3 April 2013 at CENAT/Phnom Penh participated by 31 medical doctors (F=4). The second course was a training of trainer (TOT) conducted on 8-9-10 April 2013 at CENAT/Phnom Penh attended by 54 (F=8) provincial and OD supervisors as well as staff of other TB partners. The last course was on X-ray reading focusing on childhood TB diagnosis conducted on 22-23-14 April 2013 at CENAT/Phnom Penh, attended by 64 (F=9) participants. These trainings were followed up with a series of workshops in the field to 1) to review the diagnosis process including use of the new algorithms, 2) establish IPT management and provision, 3) establish referral arrangement and 4) instruct recording and reporting system. The workshops were conducted on 2 May, 3 May, 6 May, 7 May, 8 May and 10 May 2013 at the OD offices for Mesang OD, Kg Chhnang, Pearaing OD, Ang Roka OD, Kg Trach OD, and Svay Rieng OD respectively. The participants were from provincial health department, OD and staff from local community DOTS NGOs. The total participants were 282 (F=44).</p> <p>Data collected during the quarter indicate improvement in diagnostic practices in terms of pulmonary TB diagnosis. 3,183 children suspected of TB were referred from health centers to referral hospital for diagnosis, of whom 500 cases were diagnosed as TB. Of the total 500 TB cases, 97 (19%) were classified as pulmonary TB and 403 (81%) as extra-pulmonary TB. In the past, around 96% of all childhood TB cases were extrapulmonary TB mainly clinically diagnosed cervical lymphadenitis.</p>
	1.2.2	Childhood TB: PPD	WHO	62,150	 50%	Sep	2013	<p>Procurement orders for tuberculin have already been placed with Statens Serum Institute, Denmark. This product will be used for tuberculin skin testing in TB CARE I supported childhood TB project sites. 2000 vials have been delivered. The remaining 7000 more vials will be delivered in August-September 2013.</p>

1.2.3	Prisons TB services: expand to 10 prisons	FHI360	76,141	 75%	Sep	2013	<p>In collaboration with CENAT and GDP, TB CARE /FHI 360 conducted annual mass screening of inmates in three prisons in Svay Rieng (29 Apr – 3 May), Prey Veng (13 – 18 May), and Kampong Cham (29 Apr – 3 May and 13 – 18 May). 1,588 prisoners were screened using an algorithm which includes the use of symptom checklist, chest x-rays, smear microscopy, and Xpert MTB/RIF assays. 38 (2.4%) prisoners were diagnosed with active TB.</p> <p>In collaboration with CENAT, NCHADS and GDP, TB CARE I /FHI 360 organized the quarterly coordination meeting in Preah Sihanouk province on 19 June. The purpose of the meeting is to follow-up the implementation of recommendations of quarter 2, present quarter 3 achievements, and make recommendations for improvement. 20 (4 Females) participants attended the meeting. Additionally, during the same period, the chief and vice-chief of prison cells in two prisons were coached to assist with TB/HIV activities in Kampot and in Koh Kong. The coaching was aimed to enable them to (i) identify TB suspects, (ii) collect sputum correctly, (iii) provide counseling, and (iv) improve patient compliance with ART and treatment for opportunistic infections</p>
1.2.4	Prisons: Assess engagement	FHI360	7,632	 100%	Sep	2013	<p>Completed. Cambodia participated in the core project "Scaling up engagement of prisons". Four delegates from Cambodia participated in the regional workshop for seven countries held in Jakarta from 10-14 Dec 2012. The delegates presented their assessments of the current situation and developed action plans for scaling up prison engagement in TB control. The action plan will inform the development of the next national strategic plan.</p>

1.2.5	PPM: Implementation	FHI360	82,745	 75%	Sep	2013	<p>During the quarter, the proportion of referred TB suspects reporting to public health facilities was 57% (681/1,193), lower than in the previous quarter. The number of TB cases (all forms) diagnosed among referred suspects also decreased from 165 to 109 cases, though it is still higher than the 104 TB cases diagnosed in the same quarter last year. This decrease was attributed to the rainy season when people are busy with farming activities and when physical access to health centres gets more difficult. Quarterly PPM coordination meetings were organized in ODs of Kandal province on 01 Apr, 30 May, 13, 17, 20-21 and 28 Jun (362 participants, 138 females); in Phnom Penh on 02, 08, 11 and 12 Apr (444 participants, 175 females); in Kampong Speu on 03 May (32 participants, six females); in Takeo on 26 Apr and 06 May (77 participants, 10 females); in Sieam Reap 2 May (60 participants, 18 females); and in Battambang on 6-7 Jun (101 participants, 15 females).</p> <p>An SMS system to be used in the PPM project (PPM SMS system) has been developed and will be piloted in two ODs, Takhmao (Kandal province) and Chamakar Leu (Kg Cham province). The system will provide feedback to private providers whether the patients they referred to public health facilities reported there and if they were diagnosed to have TB (or not). It is planned to train users and introduce the PPM SMS system in the next quarter.</p>
1.2.6	PPM: Hospital engagement	FHI360	55,727	 50%	Sep	2013	<p>Linked to activity 1.1.2. It was decided to implement TB/Diabetes collaborative activities in the same hospitals that have been identified for strengthening internal and external coordination to improve TB services and engagement with the national TB program.</p>

Outcome	Activity #	Activity	Activity Leader	Approved Budget	Cumulative	Month	Year	Cumulative Progress and Deliverables up-to-date
1.3 Reduced patient and service delivery delays (Timing)	1.3.1	IT-SMS project	FHI360	76,100	 75%	Sep	2013	TB CARE I staff had a meeting in Phnom Penh on May 16, 2013 with local health authorities to discuss plans for expanding the SMS alert system and seek their concurrence. Following the meeting, training on the use of the new SMS system was provided to staff of the remaining 23 HCs of the project sites - Kampong Cham (19 Jun) and Chamkar Leu (21 Jun). 57 participants (19 female) attended the training. All 38 HCs in these two ODs (15 existing and 23 new HCs) will begin using the improved TB SMS system developed by FHI 360 TB CARE I – Cambodia ( <a href="http://tbsms.cenat.gov.kh">http://tbsms.cenat.gov.kh</a> ). The system allows HC staff to send smear details and the lab technicians to send the lab results out in a package instead of as individual text messages. In the existing sites, the SMS pilot project continues to show improvements, maintaining a turnaround time of less than 5 days to deliver sputum test results since July 2012 (see chart in section 6).
	1.3.2	IT-SMS project review	FHI360	8,606	 75%	Jun	2013	Field work for the SMS project evaluation began during the quarter. Data collection was conducted from 25 May-04 June in 30 health centres (15 non-SMS implementing and 15 SMS implementing HCs) to assess the effectiveness of the TB SMS Alert System in reducing diagnostic and treatment delays. 57 participants were interviewed including HC staff, DOTS watchers, lab technicians, and TB supervisors. Data entry and analysis will be performed in next quarter.
					 67%			

2. Laboratories					Cumulative Technical Completion	Planned Completion		Cumulative Progress and Deliverables up-to-date
Outcome	Activity #	Activity	Activity Leader	Approved Budget		Month	Year	
2.1 Ensured capacity, availability and quality of laboratory testing to support the diagnosis and	2.1.1	EQA: Sputum Microscopy	JATA	50,000	 75%	Sep	2013	TB CARE I continues to support EQA for sputum microscopy in 87 microscopy centers (MC). Of the 87 MCs, 84 participated in the TB EQA exercise including i) random slide selection, ii) cross-checking of smear slides, iii) on site evaluation and on the job training and 4) feedback workshop. During this quarter, 78.5% (66/84) MCs achieved more than 95% correct results during cross checking of slides, decreased from 82.5% in the previous quarter.

monitoring of TB patients	<b>2.1.2</b>	Diagnostic capacity improvement	JATA	159,988	75%	Sep	2013	During this reporting quarter, 1,166 smear-negative TB suspects were referred by health centers to the referral hospitals (RH) for further evaluation and x-ray examination. Of those, 446 cases were diagnosed as smear negative TB. To improve the quality of x-ray reading, experts from CENAT cross-checked all x-ray films read by hospital physicians. The agreement rate between expert cross-readers and hospital physicians was 88.6%, increase from the 81.3% agreement rate in previous quarter.
	<b>2.1.3</b>	Lab supervision	JATA	43,200	75%	Sep	2013	TB CARE I and CENAT laboratory team continue to conduct supervisory visits to TB microscopy centers identified to perform mistakes during EQA exercise. The aim of supervision is to identify problems of false positive and negative result, provide feedback and improve quality of microscopy examination such as sputum collection, smear preparation, staining and reading.
<b>Outcome</b>	<b>Activity #</b>	<b>Activity</b>	<b>Activity Leader</b>	<b>Approved Budget</b>	<b>Cumulative</b>	<b>Month</b>	<b>Year</b>	<b>Cumulative Progress and Deliverables up-to-date</b>
2.2 Ensured the availability and quality of technical assistance and services	<b>2.2.1</b>	Technical assistance for lab services	JATA	18,161	0%	Mar	2013	Planned for August 2013
<b>Outcome</b>	<b>Activity #</b>	<b>Activity</b>	<b>Activity Leader</b>	<b>Approved Budget</b>	<b>Cumulative</b>	<b>Month</b>	<b>Year</b>	<b>Cumulative Progress and Deliverables up-to-date</b>
2.3 Ensured optimal use of new approaches for laboratory confirmation of TB and incorporation of these approaches in national strategic laboratory	<b>2.3.1</b>	GeneXpert	JATA	69,545	75%	Sep	2013	During this reporting period, 996 TB suspects were examined by Xpert MTB/RIF assay: 19 HIV+ TB suspects, 166 MDR-TB suspects and 811 other groups. 234 cases were detected as MTB+/RIF-, 22 as MTB+/RIF+ (MDR-TB) and 40 cases were error/invalid. All TB and MDR-TB cases were registered for treatment.
	<b>2.3.2</b>	LED microscopy	JATA	87,320	75%	Sep	2013	As per the expansion plan, TBCARE I and CENAT laboratory organized 2 courses of LED microscopy training on 22-26 April and 6-10 May 2013 for new TB lab sites from Mongkol Borei RH, Kandal RH, Odor Meanchey RH, Kratie RH, Kg Chhnang RH, Pailin RH, Ratanakiri RH, Mondulakiri RH, Koh Kong RH, Stung Treng RH, Preah Vihear RH. The training was conducted in CENAT laboratory and attended by 40 (F=15) lab technicians.
					63%			

3. Infection Control			Activity Leader	Approved Budget	Cumulative Technical Completion	Planned Completion		Cumulative Progress and Deliverables up-to-date
Outcome	Activity #	Activity				Month	Year	
3.2 Scaled-up implementation of TB-IC strategies	3.2.1	TB-IC: Implementation	FHI360	20,674	 75%	Sep	2013	<p>This quarter, <i>Simplified Checklist for TB infection control</i> at community level was finalized and distributed to DOT watchers (DW) during the regular QI monthly and C-DOTS meetings. In addition, stickers with a picture of hermit promoting cough hygiene was reprinted and distributed to further promote SAKSIT brand and raise awareness of ways to prevent the transmission of TB in the community.</p> <p>The other TB-IC checklist for use at health centres has already been distributed and staff trained to use it. This checklist will be used during supervisory visits to assess and score performance of health facilities with regard to implementation of TB-IC measures in their facilities. The assessment results will be reported from the next quarter</p>
	3.2.2	TB-IC: TA and ToTs	FHI360	31,397	 100%	Dec	2012	Completed. This is linked to Activity 3.2.1. Ms Stella Kirkendale from FHI/HQ visited Cambodia from 4-21 Dec 2012 to oversee the facilitation of two pilot training of trainers (TOTs) on adaptation, use and scale-up of the Simplified Checklist for TB Infection Control at community level.
	3.2.3	TB-IC: Communications	FHI360	58,474	 75%	Sep	2013	During the reporting period, TB CARE team conducted data collection for an end-line survey to assess the effectiveness of SAKSIT communication campaign. Data collection took place from 7-17 May 2013 in three ODs of Kampong Cham province (Kampong Cham, Chamkar Leu and Ponhea Krek). 516 participants were interviewed including DWs, TB patients under treatment, villagers, and HC staff. Data entry and cleaning was finished, and data analysis is under process. The final report is expected to be ready in the next quarter. In addition, the video featuring comedians to provide information on TB will be used for community screening in the next quarter.
					 83%			

4. PMDT			Activity Leader	Approved Budget	Cumulative Technical Completion	Planned Completion		Cumulative Progress and Deliverables up-to-date
Outcome	Activity #	Activity				Month	Year	
4.1 Improved treatment success of MDR TB	4.1.1	PMDT: Trainings & supervision	WHO	56,566	75%	Sep	2013	Ongoing supervision and on-the-job training are being conducted to cover all 24 provinces and at least six treatment sites every quarter. At least 10 DR-TB patients receiving treatment in the community are visited by national supervisors to monitor the effectiveness of the program implementation and quality of care. Nursing officers and physicians of CHC (NGO) visit every DRTB patient at their home every 15-30 days.
	4.1.2	PMDT: Sensitization workshop for C-DOTS partners	WHO	7,554	0%	Sep	2013	Sensitization workshop for C-DOTS partners will be done in August 2013.
	4.1.3	PMDT: Local TA (CHC)	WHO	60,499	75%	Sep	2013	Staff of Cambodia Health Committee (CHC), a local NGO which is a subrecipient of WHO, continues to provide technical support for community-based PMDT.
	4.1.4	PMDT: Enablers	WHO	160,350	75%	Sep	2013	CHC continues to conduct home visits and provide enablers such as food support to around 150 DR-TB patients per month as planned. The target is to visit all patients on DR-TB treatment at least once a month to ensure high treatment success rates and avoid catastrophic costs to patients.
	4.1.5	PMDT: Drugs and supplies	WHO	180,484	100%	Sep	2013	Procurement is complete. CENAT/NTP has requested for staggered delivery. The first shipment of the procured SLD arrived in the Central Medical Store in June 2013. The next shipment is due in December 2013.
					65%			

5. TB/HIV			Activity Leader	Approved Budget	Cumulative Technical Completion	Planned Completion		Cumulative Progress and Deliverables up-to-date
Outcome	Activity #	Activity				Month	Year	
5.2 Improved diagnosis of TB/HIV co-infection	5.2.1	HIV testing of TB patients	WHO	45,200	75%	Sep	2013	About 2,500 TB patients are tested for HIV every quarter using TB CARE support. As per annual NTP reports, in 2012, 80.4% of the TB patients notified to the NTP were tested for HIV, compared to 81% 2011. TB CARE I supports HIV testing of TB patients in 21 (27%) of the total 77 ODs in the country
					75%			

6. Health Systems Strengthening			Activity Leader	Approved Budget	e Technical Completi on	Planned Completion		Cumulative Progress and Deliverables up-to-date
Outcome	Activity #	Activity				Month	Year	
6.2 TB control components (drug supply and management, laboratories, community care, HRD and M&E) form an integral part of national plans,	6.2.1	NTP partner coordination	JATA		 75%	Sep	2013	TB CARE I helped Cambodia NTP to organise and participate in several coordination meetings such as regular meetings of MDR-TB and Laboratory technical working groups, and more recently on TB-infection control.
	6.2.2	Resource mobilization for NTP	WHO	24,860	 75%	Sep	2013	A senior consultant, Dr Paul Nunn, was hired to design a new National Strategic Plan for TB control (2014-2020). He visited the country twice during his 2.5 months contract besides working off-site. He conducted a workshop with all stakeholders besides meeting national, provincial and district authorities, and development partners. This new plan will help the country for resource mobilization from all possible funding sources, particularly from the new funding mechanism of the Global Fund. The new plan incorporates new evidences on effective implementation strategies.
					 75%			

7. M&E, OR and Surveillance			Activity Leader	Approved Budget	Cumulative Technical Completion	Planned Completion		Cumulative Progress and Deliverables up-to-date
Outcome	Activity #	Activity				Month	Year	
7.1 Strengthened TB surveillance	7.1.1	e-TB manager for PMDT	MSH	120,630	 50%	Sep	2013	<p>Activities implemented for e-TB Manager implementation during the quarter include the following:</p> <ol style="list-style-type: none"> <li>1. Dr Samuel Kinyanjui from MSH visited Cambodia from 13-24 May 2013 to support the local e-TB manager TOTs to training for health staff working at all 11 PMDT sites on e-TB manager implementation and update stakeholders on the progress and agree on next steps.</li> <li>2. e-TB manager training conducted in Siem Reap province from 20-24 May 2013, attended by 25 participants (9 females and 16 males) including: CENAT- 3 staff, CENAT hospital-2 staff, TB culturelabs-4 staffs (Kg Cham and Battambang), 16 staff staff from the 11 MDR-TB treatment sites. This was designed to empower the DR-TB control staff (lab staff, pharmacy staff, nurses &amp; clinicians) with skills and hands-on experiences to enable them start posting patient data in the e-TB Manager database (cloud).</li> <li>3. Conducted a stakeholders meeting to present the customized e-TB manager Cambodia work space English and Khmer and English versions for final comments and validation; feedback received during this meeting was used to update the webspace further.</li> <li>4. Procurement of computers, internet modems and other computer accessories equipment's have been done for the first step for pilot implementation including seven desktop computers, 6 black/white printers, 1 color printer, 12 internet modems, 7 UPS and 2 external hard disks.</li> <li>5. Planned STTA in the fourth quarter (July -Aug 2013) to provide additional capacity building for local staff a) Train local NTP IT staff to trouble shoot the e-TB manager webspace; b) Provide on-the job mentorship for staff in 4 main DR-TB treatment sites and conduct preliminary system evaluation; c) Procure additional computers for the remaining 4 sites, d) fix any pending customization requests.</li> </ol>
Outcome	Activity #	Activity	Activity Leader	Approved Budget	Cumulative	Month	Year	Cumulative Progress and Deliverables up-to-date
7.2 Improved capacity of NTPs to analyze and use quality data for the	7.2.1	NTP peer review	FHI360	29,960	 25%	Sep	2013	Peer-reviews were previously conducted by a team from CENAT and TB CARE I as a means to verify data reported by ODs to the NTP. Two randomly selected ODs were visited by the team early this year after which this activity was discontinued. CENAT plans to continue with this activity on their own as a part of their ongoing supervisory visits.

management of the TB program	<b>7.2.2</b>	Knowledge exchange: international travel	FHI360	20,132	 0%	Nov	2013	Three staff members (one each from FHI 360, WHO and the NTP) plan to participate in the 44th Union World Conference on Lung Health to be held in Paris from 30 Oct-3 Nov 2013.
<b>Outcome</b>	<b>Activity #</b>	<b>Activity</b>	<b>Activity Leader</b>	<b>Approved Budget</b>	<b>Cumulative</b>	<b>Month</b>	<b>Year</b>	<b>Cumulative Progress and Deliverables up-to-date</b>
7.3 Improved capacity of NTPs to perform operations research	<b>7.3.1</b>	OR workshop: Protocol development	KNCV	33,487	 100%	Feb	2013	Completed in the previous quarter. Dr Jacques v.d. Broek and Dr Edine Tiemersma from KNCV, facilitated a protocol development workshop in February during which three OR protocols were developed.
	<b>7.3.2</b>	OR workshop: data analysis and report	KNCV	33,487	Cancelled	Sep	2013	Planned for Nov 2014 to allow for more time for data collection by the research teams
	<b>7.3.3</b>	OR: Mentoring and operational costs	KNCV	80,498	 50%	Sep	2013	Started after the workshop (Activity 7.3.1) and will be more intense once the protocols developed during the workshop are finalized and approval obtained from the NTP and the national ethics committee
					 <b>45%</b>			

Total Approved Staffing & Operations Budget	995,348
Grand Total Approved Project Budget	3,448,004

## Quarterly MDR-TB Report

<b>Country</b>	<b>Cambodia</b>
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<b>Period</b>	<b>April - June 2013</b>
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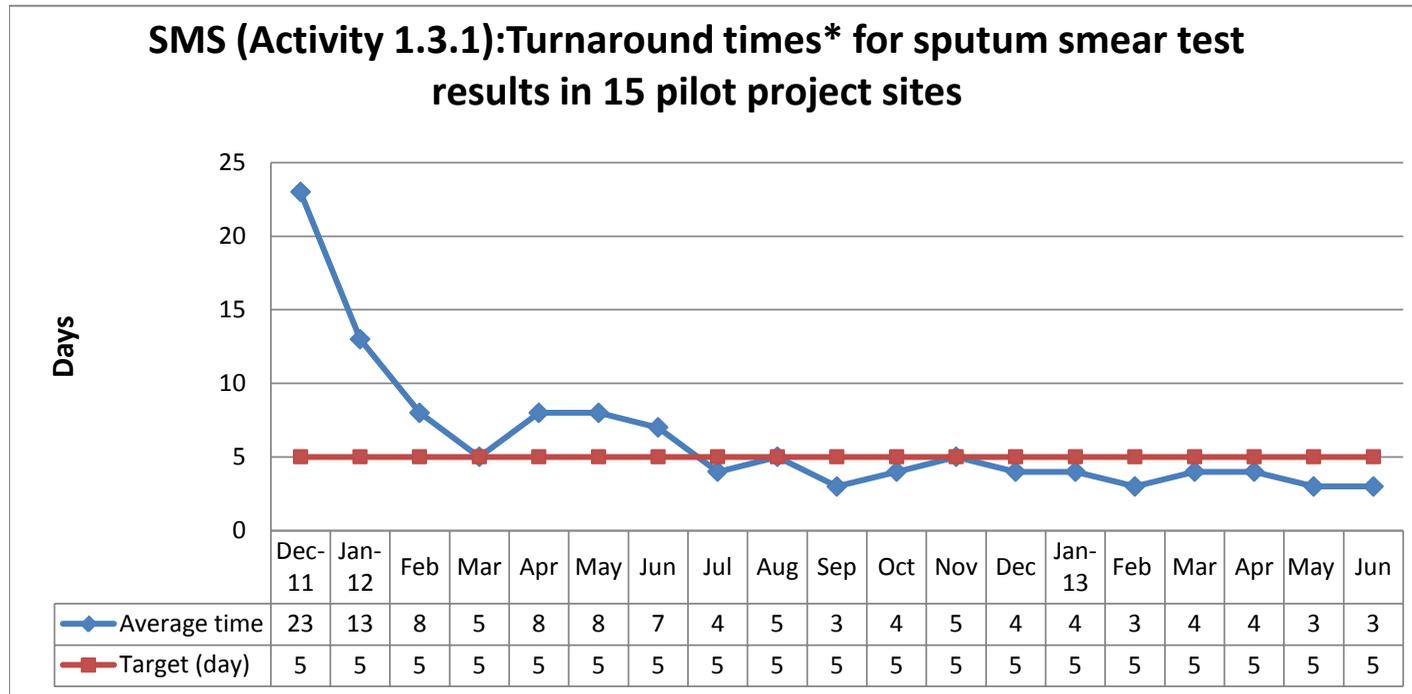
### MDR TB cases diagnosed and put on treatment in country

Quarter	Number of MDR cases diagnosed	Number of MDR cases put on treatment	Comments:
<b>Total 2010</b>	31	41	Jan-Dec 2012: 110 of the total 130 cases enrolled on treatment with second line drugs (SLD) were confirmed as MDR-TB.
<b>Total 2011</b>	56	83	
<b>Jan-Mar 2012</b>	29	31	
<b>Apr-Jun 2012</b>	18	18	
<b>Jul-Sep 2012</b>	35	34	
<b>Oct-Dec 2012</b>	35	27	Jan-Jun 2013: 44 of the 51 cases enrolled on treatment with SLDs have been confirmed as RR-TB/MDR-TB at the time of reporting
<b>Total 2012</b>	117	110	
<b>Jan-Mar 2013</b>	22	16	
<b>Apr-Jun 2013</b>	29	28	
<b>To date in 2013</b>	51	44	

## 6. TB CARE I-supported International Visits (technical and management-related trips)

#	Partner	Activity Code	Name	Purpose	Planned month, year	Status	Dates completed	Additional Remarks
1	JATA	2.2.1	Hiroko Matsumoto	To conduct review on LED microscope and xpert implementation to provide recommendation to strengthen lab services	Dec-12	Postponed	Planned for next quarter	
2	JATA	2.2.1	Satoshi Mitarai	To conduct review on LED microscope and xpert implementation to provide recommendation to strengthen lab services	TBD (Joint trip with 2.2.1 or separate trip)	Planned	Planned for next quarter	
3	JATA	2.1.2.6	Akira Shimouchi	To provide TA on X-ray	Jan-13	Postponed	Planned for 12-23 August 2013	Changed to Dr Hirao
4	JATA	2.1.2.6	Akira Shimouchi or Yoshimatsu	To provide TA on childhood TB	May-13	Completed	22-26 April	Dr S. Yoshimatsu
5	FHI	3.2.2	Stella Kirkendale	TA from community engagement consultant, including for two ToTs in TB-IC	Dec-12	Completed	4-21 Dec 2012	
6	KNCV	7.3.1	Jacques van den Broek & Edine Tiemersma	To conduct first OR workshop to develop protocols based on NTP research agenda	Feb-13	Completed	17-24 Feb 2013	
7	KNCV	7.3.2	Jacques van den Broek & Edine Tiemersma	To conduct second OR workshop on data analysis, presentation of results, and writing scientific papers	Sep-13	Postponed	Planned for Nov 2013	
8	MSH	7.1.1.19	Kinyanjui, Samuel	Insure that e-TB manager pilot implementation is documented and lessons learnt are shared out with key stakeholders	Feb-13	Completed	13-24 May 2013	Completed in May
9	MSH	7.1.1.35	Kinyanjui, Samuel	Support the scale up of e-TB manager activities to all 11 PMDT sites	Aug-13	Planned	Planned for July	
10	MSH	7.1.1.30	Silvastava	Support the scale up of e-TB manager activities to all 11 PMDT sites	Feb-13	Postponed	Planned for August	
11	WHO	6.2.2	Nunn, Paul	Draft new strategic plan (2014-2020), which would form the basis for drafting proposals for funding from various sources, especially the Global Fund	Oct-Dec 2013	Completed	1 May - 7 July 2013	
12								
13								
Total number of visits conducted (cumulative for fiscal year)							5	
Total number of visits planned in workplan							11	
Percent of planned international consultant visits conducted							45%	

## Quarterly Photos (as well as tables, charts and other relevant materials)



\*Turnaround time is measured from the date the health centres send sputum smears to the labs to the date the results are returned by the labs to the health centre staff through SMS



Active Case Finding in Prisons, Cambodia  
Photos by Dr Ly Mena, FHI 360, Cambodia

## Quarterly Report on Global Fund Engagement

<b>Country</b>	<b>Cambodia</b>	<b>Period</b>	<b>April - June 2013</b>
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<b>Current Global Fund TB Grants</b>				
<b>Name (i.e. Round 10 TB)</b>	<b>Average rating*</b>	<b>Current rating</b>	<b>Total approved amount</b>	<b>Total dispersed to date</b>
Round 7 TB	A2	A1	18,144,306	17,104,895

\*Since January 2010

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

The current Round 7 TB grant will end in March 2014. Cambodia has been identified as an interim applicant and will be eligible to receive 3 million indicative funding in 2014. Thereafter, Cambodia will apply as a standard applicant with full expression of needs.

NTP anticipates potential shortage of some second line drugs and paediatric TB drugs in early 2014, and are in discussions with GF to explore possibilities to use the remaining funds from Round 7 or part of the amount identified for its interim application to cover this cost. Considering the lead time for these procurements, NTP will need to secure the funds in the coming 1-2 months so the products can be delivered around January 2014.

### **TB CARE I & Global Fund - TB CARE I involvement in GF support/implementation and effect of GF on the TB CARE I work**

TB CARE I is currently assisting CENAT to prepare for future application to the GF including leading the development of the next national strategic plan (NSP) for TB control (2014-2020) and accompanying documents to guide future applications. TB CARE is part of the task force for the NSP development, facilitated meetings and consultation workshops, and has recruited a senior consultant (Dr Paul Nunn) to coordinate and draft the first draft of the NSP during this fiscal year.

In addition, TB CARE I is helping fill the gap for some activities that could not be supported through the Global Fund grant because of inadequate funds – such as procurement of second line drugs (for 50 patients), PPD and X-ray supplies; support for performing EQA for sputum microscopy, and HIV testing of TB patients.

## Inventory List of Equipment - TB CARE I



**USAID**  
FROM THE AMERICAN PEOPLE

**TB CARE I**

<b>Organization:</b>	<b>TB CARE I</b>
<b>Country:</b>	<b>Cambodia</b>
<b>Reporting period:</b>	<b>April-June 2013</b>
<b>Year:</b>	<b>APA 3</b>

Description (1)	ID numbers (2)	Acquisition date (3)	Acquisition cost (4)	V.A.T (5)	Location (6)	Condition (7)	Disposition date (8)	Title held by (9)	Insurance Policy #
LED Microscopes (Primo Star)	TBCARE 040-1	21-Feb-13	\$ 2,982.50	N/A	Kg Chhnang PRH TB Lab	Good	N/A	N/A	N/A
LED Microscopes (Primo Star)	TBCARE 040-2	21-Feb-13	\$ 2,982.50	N/A	Kratie PRH TB Lab	Good	N/A	N/A	N/A
LED Microscopes (Primo Star)	TBCARE 040-3	21-Feb-13	\$ 2,982.50	N/A	Koh Kong PRH TB Lab	Good	N/A	N/A	N/A
LED Microscopes (Primo Star)	TBCARE 040-4	21-Feb-13	\$ 2,982.50	N/A	Preah Vihear PRH TB Lab	Good	N/A	N/A	N/A
LED Microscopes (Primo Star)	TBCARE 040-5	21-Feb-13	\$ 2,982.50	N/A	Pailin PRH TB lab	Good	N/A	N/A	N/A
LED Microscopes (Primo Star)	TBCARE 040-6	21-Feb-13	\$ 2,982.50	N/A	Ratanakiri PRH TB Lab	Good	N/A	N/A	N/A
LED Microscopes (Primo Star)	TBCARE 040-7	21-Feb-13	\$ 2,982.50	N/A	Stung Treng PRH TB Lab	Good	N/A	N/A	N/A
LED Microscopes (Primo Star)	TBCARE 040-8	21-Feb-13	\$ 2,982.50	N/A	Mondulkiri PRH TB lab	Good	N/A	N/A	N/A
LED Microscopes (Primo Star)	TBCARE 040-9	21-Feb-13	\$ 2,982.50	N/A	CENAT	Good	N/A	N/A	N/A
LED Microscopes (Primo Star)	TBCARE 040-10	21-Feb-13	\$ 2,982.50	N/A	CENAT	Good	N/A	N/A	N/A
Film viewer	TBCARE 039	23-Jan-13	\$ 27.00	N/A	Kong Pisey RH	Good	N/A	N/A	N/A
Film viewer	TBCARE 041	21-Jun-13	\$ 34.00	N/A	Anlung Veng RH	Good	N/A	N/A	N/A
Film viewer	TBCARE 042	04-Jul-13	\$ 34.00	N/A	Sampov Laun RH	Good	N/A	N/A	N/A
Film viewer	TBCARE 044-1	10-Jul-13	\$ 34.00	N/A	Svay Rieng RH	Good	N/A	N/A	N/A
Film viewer	TBCARE 044-2	10-Jul-13	\$ 34.00	N/A	JATA office	Good	N/A	N/A	N/A
Grid for X-ray	TBCARE 043-1	05-Jul-13	\$ 155.00	N/A	Sampov Laun RH	Good	N/A	N/A	N/A
Grid for X-ray	TBCARE 043-2	05-Jul-13	\$ 155.00	N/A	Kong Pisey RH	Good	N/A	N/A	N/A
Water Distiller	TBCARE 045	11-Jul-13	\$ 2,500.00	N/A	CENAT National TB Lab	Good	N/A	N/A	N/A
Samsung Galaxy Grand Dual Sim I908	RF1D42TLY9N	01-May-13	\$ 336.00		FHI-PNP	New	N/A		
1 Desktop computer: Dell OptiPlex 9010 SFF	MSH/TB CARE/ e-TBM-001	05-Jun-13	925	N/A	MDR-TB Ward of CENAT	New	N/A		
1 Desktop computer: Dell OptiPlex 9010 SFF	MSH/TB CARE/ e-TBM-002	05-Jun-13	925	N/A	MDR-TB Suspect, CENAT Hospital	New	N/A		
1 Desktop computer: Dell OptiPlex 9010 SFF	MSH/TB CARE/ e-TBM-003	05-Jun-13	925	N/A	MDR-TB Ward of Kg Cham Hospital	New	N/A		
1 Desktop computer: Dell OptiPlex 9010 SFF	MSH/TB CARE/ e-TBM-004	05-Jun-13	925	N/A	MDR-TB Ward of Battambang Hospital	New	N/A		
1 Desktop computer: Dell OptiPlex 9010 SFF	MSH/TB CARE/ e-TBM-005	05-Jun-13	925	N/A	MDR-TB Ward of Takeo Hospital	New	N/A		
1 Desktop computer: Dell OptiPlex 9010 SFF	MSH/TB CARE/ e-TBM-006	05-Jun-13	925	N/A	MDR-TB Ward of Siem Reap Hospital	New	N/A		
1 Desktop computer: Dell OptiPlex 9010 SFF	MSH/TB CARE/ e-TBM-007	05-Jun-13	925	N/A	MDR-TB Ward of Monkol Borey Hospital	New	N/A		

1 Printer HP LaserJet Pro 400 Printer M401dn	MSH/TB CARE/ e-TBM-008	05-Jun-13	375	N/A	MDR-TB Ward of CENAT	New	N/A		
1 Printer HP LaserJet Pro 400 Printer M401dn	MSH/TB CARE/ e-TBM-009	05-Jun-13	375	N/A	MDR-TB Ward of Kg Cham Hospital	New	N/A		
1 Printer HP LaserJet Pro 400 Printer M401dn	MSH/TB CARE/ e-TBM-013	05-Jun-13	375	N/A	MDR-TB Ward of Battambang Hospital	New	N/A		
1 Printer HP LaserJet Pro 400 Printer M401dn	MSH/TB CARE/ e-TBM-011	05-Jun-13	375	N/A	MDR-TB Ward of Takeo Hospital	New	N/A		
1 Printer HP LaserJet Pro 400 Printer M401dn	MSH/TB CARE/ e-TBM-012	05-Jun-13	375	N/A	MDR-TB Ward of Siem Reap Hospital	New	N/A		
1 Printer HP LaserJet Pro 400 Printer M401dn	MSH/TB CARE/ e-TBM-010	05-Jun-13	375	N/A	MDR-TB Ward of Monkol Borey Hospital	New	N/A		
1 Color Printer HP Pro 400m451dn	MSH/TB CARE/ e-TBM-014	05-Jun-13	799	N/A	TB CARE I Office for MSH Consultant	New	N/A		
1 UPS Power tree 650VA	MSH/TB CARE/ e-TBM-015	05-Jun-13	30	N/A	MDR-TB Ward of CENAT	New	N/A		
1 UPS Power tree 650VA	MSH/TB CARE/ e-TBM-016	05-Jun-13	30	N/A	MDR-TB Suspect, CENAT Hospital	New	N/A		
1 UPS Power tree 650VA	MSH/TB CARE/ e-TBM-017	05-Jun-13	30	N/A	MDR-TB Ward of Kg Cham Hospital	New	N/A		
1 UPS Power tree 650VA	MSH/TB CARE/ e-TBM-018	05-Jun-13	30	N/A	MDR-TB Ward of Battambang Hospital	New	N/A		
1 UPS Power tree 650VA	MSH/TB CARE/ e-TBM-019	05-Jun-13	30	N/A	MDR-TB Ward of Takeo Hospital	New	N/A		
1 UPS Power tree 650VA	MSH/TB CARE/ e-TBM-020	05-Jun-13	30	N/A	MDR-TB Ward of Siem Reap Hospital	New	N/A		
1 UPS Power tree 650VA	MSH/TB CARE/ e-TBM-021	05-Jun-13	30	N/A	MDR-TB Ward of Monkol Borey Hospital	New	N/A		
1 External Hard Disk Transcend 1TB USB 3.0	MSH/TB CARE/ e-TBM-022	05-Jun-13	86	N/A	TB CARE I Office for MSH Consultant	New	N/A		
1 External Hard Disk Transcend 1TB USB 3.0	MSH/TB CARE/ e-TBM-023	05-Jun-13	86	N/A	TB CARE I Office for MSH Consultant	New	N/A		
1 Modem (Metfone)	MSH/TB CARE/ e-TBM-024	17-May-13	27	N/A	MDR-TB Ward of CENAT	New	N/A		
1 Modem (Metfone)	MSH/TB CARE/ e-TBM-025	17-May-13	27	N/A	MDR-TB Suspect CENAT Hospital	New	N/A		
1 Modem (Metfone)	MSH/TB CARE/ e-TBM-026	17-May-13	27	N/A	MDR-TB Ward of Kg Cham Hospital	New	N/A		
1 Modem (Metfone)	MSH/TB CARE/ e-TBM-027	17-May-13	27	N/A	Culture Lab of Kg Cham Hospital	New	N/A		
1 Modem (Metfone)	MSH/TB CARE/ e-TBM-028	17-May-13	27	N/A	MDR-TB Ward of Battambang Hospital	New	N/A		
1 Modem (Metfone)	MSH/TB CARE/ e-TBM-029	05-Oct-12	30	N/A	MDR-TB Ward of Takeo Hospital	New	N/A		
1 Modem (Metfone)	MSH/TB CARE/ e-TBM-030	17-May-13	27	N/A	MDR-TB Ward of Siem Reap Hospital	New	N/A		
1 Modem (Metfone)	MSH/TB CARE/ e-TBM-031	17-May-13	27	N/A	MDR-TB Ward of Monkol Borey Hospital	New	N/A		

1 Modem (Metfone)	MSH/TB CARE/ e-TBM-032	05-Oct-12	30	N/A	Khmer Soviet Friendship Hospital	New	N/A		
1 Modem (Metfone)	MSH/TB CARE/ e-TBM-033	05-Oct-12	30	N/A	MDR-TB Ward of Svay Rieng Hospital	New	N/A		
1 Modem (Metfone)	MSH/TB CARE/ e-TBM-034	05-Oct-12	30	N/A	Lab of CENAT	New	N/A		
1 Modem (Metfone)	MSH/TB CARE/ e-TBM-035	05-Oct-12	30	N/A	MDR-TB Ward of Kandal Hospital	New	N/A		

(1) Description of equipment: transportation (vehicles), administration (computers, faxes), laboratory equipment or others

(2) Identification number (eg Manufacturer's serial number, model number, Federal stock number, national stock number)

(3) Date of invoice

(4) Total price including any sales tax paid. Use currency on invoice

(5) Note any sales tax charged

(6) Address

(7) Good/fair or bad

(8)+(9) Ultimate disposition data, (in the case of a vehicle) including date of disposal and sales price or the method used to determine current fair market value. where a recipient compensated TB CARE I for its share. Attach supplementary info