TB CARE I
PROGRAM YEAR 3
QUARTER THREE
PERFORMANCE MONITORING REPORT
April 1, 2013 – June 30, 2013

August 15th, 2013

TB CARE I Partners:

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

USAID
FROM THE AMERICAN PEOPLE

TB CARE I

Table of Contents

List of Tables

List of Figures

List of Abbreviations

ACSM	Advocacy Communication Social Mobilization
AFB	Acid Fast Bacilli
ART	Anti-retroviral Therapy
Binfar	Directorate General of Pharmaceutical and Medical Devices (Indonesia)
BPPM	Directorate of Medical Services (Indonesia)
CAR	Central Asian Republics
CB-DOTS	Community-Based DOTS
CBTBC	Community-Based TB Care
CDC	Center for Disease Control and Prevention
CoE	Center of Excellence
CDR	Case Detection Rate
CHW	Community Health Worker
CSO	Civil Society Organization
DEWG	DOTS Expansion Working Group
DOT	Directly Observed Treatment
DOTS	Directly Observed Treatment Short Course
DR	Drug Resistance
DRS	Drug Resistance Survey
DST	Drug Susceptibility Testing
ECSA	East, Central and Southern Africa
EQA	External Quality Assurance
ERR	Electronic Recording & Reporting
FIND	Foundation for Innovative New Diagnostics
GDF	Global Drug Facility
GFATM	Global Fund for Aids, Tuberculosis and Malaria
GLC	Green Light Committee
GLI	Global Laboratory Initiative
HAART	Highly Active Anti Retroviral Treatment
HCW	Healthcare Worker
HRD	Human Resource Development
HSS	Health System Strengthening
IC	Infection Control
IEC	Information, Education and Communication
IPT	Isoniazid Preventive Therapy
IQC	Internal Quality Control
ILEP	International Federation of Anti-Leprosy Associations
JATA	Japan Anti Tuberculosis Association
JSM	Joint Strategic Meeting
KANCO	Kenya AIDS NGOs Consortium
KAPTLD	Kenya Association for Prevention of TB and Lung Diseases
KIT	Royal Tropical Institute
KNCV	KNCV Tuberculosis Foundation
LED	Light Emitting Diode (microscopy)
LPA	Line Probe Assay
MDR	Multi Drug Resistance
MDR-TB	Multi Drug Resistant Tuberculosis
M&E	Monitoring and Evaluation
MOA	Memorandum of Agreement
MoH	Ministry of Health
MOST	Management & Organizational Sustainability Tool
MSF	Médecins sans Frontières (Doctors without Borders)
MSH	Management Sciences for Health
NAP	National Aids Program
NCE	No-Cost Extension
NGO	Non-Governmental Organization
NIHE	National Institute of Health and Epidemics (Vietnam)
NTP	National TB Program
NRL	National Reference Laboratory
NTRL	National Tuberculosis Reference Laboratory
OPD	Out-patient Department
OR	Operations Research
PCA	Patient Centered Approach
PiH	Partners in Health
PITC	Provider-Initiated Treatment and Counseling
PHCC	Primary Health Care Center
PLHIV	People Living with HIV
PMDT	Programmatic Management of Drug-resistant Tuberculosis
PMU	Program Management Unit
PPM	Private Public Mix
PPP	Public Private Partnership
RIF	Rifampicin
QMR	Quarterly Monitoring Report
SANAS	South Africa National Accreditation System
SLD	Second Line Drug
SNRL	Supra National Reference Laboratory
SOP	Standard Operating Procedures
SS+	Sputum Smear positive
SS-	Sputum Smear negative
TA	Technical Assistance
TB	Tuberculosis
TB-IC	TB Infection Control
TB CAP	Tuberculosis Control Assistance Program
TBCTA	Tuberculosis Coalition for Technical Assistance
TOT	Training of Trainers
TFM	Transitional Funding Mechanism
TWG	Technical Working Group
USAID	United States Agency for International Development
UVGI	Ultraviolet Germicidal Irradiation
WHO	World Health Organization

1. Introduction

As of June 2013, TB CARE I is three quarters of the way through Year 3. This report provides a technical and financial update on progress made between April-June 2013 for TB CARE I core, regional and country projects. Implementation continued in a total of 19 countries as The Dominican Republic closed out as a TB CARE I country at the end of March. Six core projects were completed this quarter while 33 core projects continue to be implemented. Three regional projects continued activities and one regional project (Djibouti) started. Below is a brief summary of TB CARE I's main achievements this quarter and challenges for the next three months.

Main Achievements:

- A regional training for four CAR countries on planning, monitoring and evaluation was conducted by TB CARE I in April. In June, TB CARE I conducted a global training on "Innovations in Data Quality" for NTP and project M&E staff from 16 countries across Africa and Asia. In addition to skill-building and knowledge exchange, deliverables for both trainings were activity plans that have since been incorporated into Year 4 workplans.
- In Uganda, the state-of-the-art MDR-TB isolation ward at Mulago Hospital was officially handed over to the hospital administration on June 18, 2013. This 39-bed capacity ward was remodeled, renovated and equipped with support from TB CARE I.
- During the 4th Conference of The Union Asia–Pacific Region in April, TB CARE I-Vietnam organized a symposium on TB CARE I innovation and hosted an exhibit to disseminate good practices of the program achieved so far in Vietnam, Cambodia and Indonesia. During the symposium, TB CARE I highlighted the role GeneXpert MTB/RIF has played in PMDT scale-up in the region. With TB CARE I's support, use of Xpert has led to a shortened time to diagnosis, a reduction in the need for culture and drug sensitivity testing (DST), and an increase in the number of patients diagnosed and put on second line treatment.
- In Vietnam, due to the success of the TB CARE I-supported TB specimen referral system in seven pilot sites, the NTP is now using Global Fund support to expand the system to 35 provinces.
- In Kenya, TIBU, the electronic tablet-based program management and reporting system developed with support from TB CARE I has been rolled out in 47 counties nationwide. In addition, TB CARE I has used the payment component for supervision activities via mobile money transfer using M-pesa. So far, the TIBU system has been used to disburse payments amounting to over $470,000 to more than 500 beneficiaries (TB program staff and MDR-TB patients). The TIBU system was officially handed over to the TB program during the TB CARE I-Kenya close out meeting in June.
- In Cambodia, 500 pediatric TB cases were diagnosed this quarter of which 403 (81%) were classified as extra-pulmonary TB and 97 (19%) as pulmonary TB. In the past, around 96% of all childhood TB cases were extra-pulmonary TB.
- The Indonesian PMDT expansion was accelerated with intensive support from TB CARE I. Nineteen new PMDT sites were trained with GF funding, facilitated by TB CARE I consultants. A total of ten PMDT treatment centers (including Papua), three sub treatment centers and 385 satellites have been established in 11 provinces so far. This resulted in a significant increase in the number of MDR-TB patients enrolled; 435 patients were enrolled on MDR-TB treatment in the first half of 2013 – roughly the same number enrolled during all of 2012.
- After six years of hard work and investment from USAID (through TB CAP/TB CARE I) and CDC, the National Reference Laboratory in Kampala, Uganda received its accreditation from the WHO in April 2013 during the Global Laboratory Initiative (GLI) meeting. This accreditation means the laboratory has become the second Supra National Reference Laboratory (SNRL) in all of Africa (with the official inauguration planned for July 2013).
- TB CARE I will have a tremendous presence at the Union World Conference on Lung Health in October. To date, more than 50 TB CARE I-authored abstracts have been accepted, nine symposia are planned and two workshops are being organized with TB CARE I involvement.

Main Challenges:

- As the TB CARE I program has reached its ceiling of $225 million with Year 4 obligations, country projects are ending after four years instead of the anticipated five year project length. Projects are therefore working strategically and efficiently to prepare and implement Year 4 workplans that can have the greatest impact in the last year of country obligations.
- Having developed such a wide range of guides, manuals and other tools over the last several years, special attention must be paid to the implementation of these resources at country level in this last year of implementation.

2. Program Management Unit (PMU)

PMU staff continued to provide technical and managerial assistance and participate in global meetings and conferences throughout the quarter (summarized in Table 1).

Table 1: TB CARE I countries visited by PMU members for technical or managerial purposes, April-June 2013

Country	Purpose
Kazakhstan	Regional Planning, Monitoring & Evaluation Training
Kenya	Global M&E training
Morocco	Applying contact investigation guidelines
Mozambique	Stop-TB TB/HIV Working group meeting; project management visit
Namibia	Consensus-building workshop on revised TB-IC Guidelines
Nigeria	NTP Review
Switzerland	GLI meeting; GeneXpert consultation meeting; STAG
US (Washington DC)	Post-2015 targets; Johns Hopkins
Zambia	Monitoring the Ndola TB-IC demonstration project; Developing TB-IC assessment tool and key recommendations for prison settings (3I's project)

A three-day TB CARE I Country Directors Meeting was held in The Hague, Netherlands in May. The timing and content of this meeting allowed for greater focus on planning and strategizing for Year 4 workplans. As a result, the Year 4 workplanning process has progressed more smoothly and rapidly than in years passed.

Knowledge Exchange

Union World Conference on Lung Health:
TB CARE I will have a tremendous presence at the Union World Conference on Lung Health in October. To date, more than 50 TB CARE I-authored abstracts have been accepted, nine symposia are being planned and two workshops are being organized with TB CARE I involvement/leadership. A summary of all TB CARE I-supported presentations and events will be available on the TB CARE I website preceding the conference.

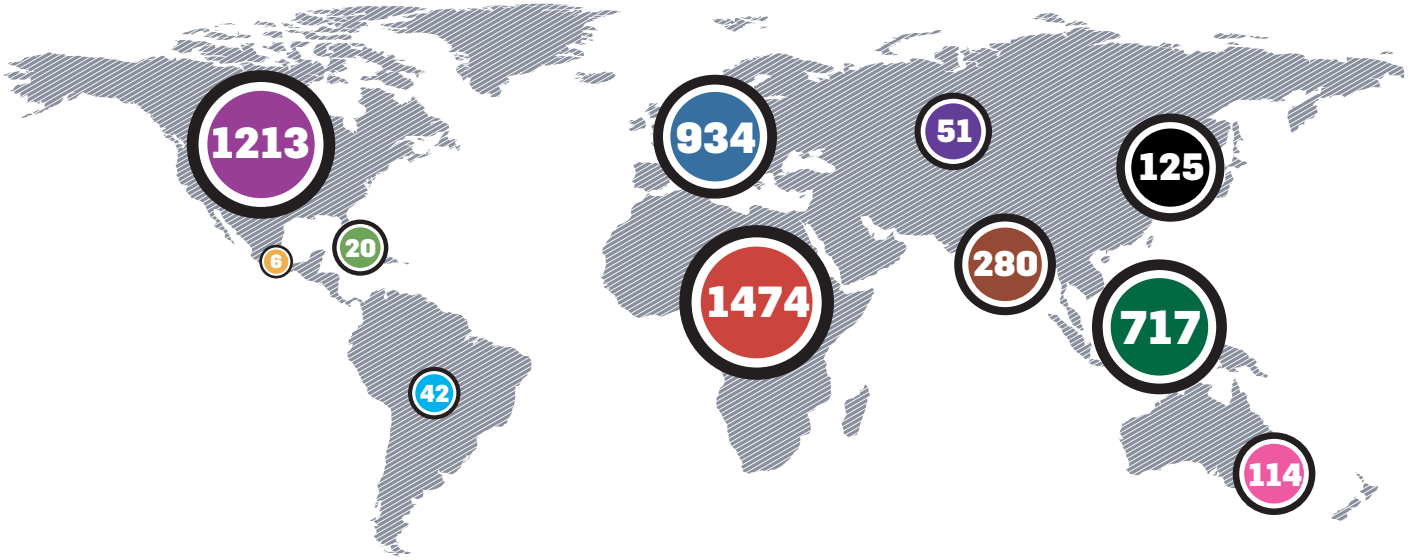
TB CARE I website:
The number of visitors to the website continued to rise in the quarter (14% increase), as did the number of page views (11% increase) and the number of downloads (18% increase).

The largest proportion of visitors come from Africa and Asia where TB CARE I work is focused, but there is an interest in our work and publications from every corner of the world with a record 136 countries listed as visiting the site (70% of the world's countries) this quarter, and TB CARE I publications were downloaded in 64 (47%) of those countries.

Table 2: Summary of visitors to the TB CARE I website, January-March 2013

	January-March 2013	April-June 2013
Number of Visitors	4,726	5,399
Number of Countries Visitors came from	130	136
Number of Pages Viewed	10,614	11,826
Percentage of New Visitors	70%	72%

Figure 1: Map of TB CARE I website visitor locations for the quarter



This quarter, 1,541 documents were downloaded; the top ten most popular downloads (and number of downloads) were as follows:

1. TB CARE I Annual QMR 2 Year 3 (Number of downloads – 55)
2. TB CARE Publications Booklet (47)
3. TB CARE I Annual QMR 1 Year 3 (43)
4. Acceptability of Household and Community Based Screening (36)
5. Improving the Estimates of Childhood TB (36)
6. Rapid Implementation of Xpert MTB/RIF Diagnostic Test (35)
7. TB-IC Job Aid (33)
8. A Strategic Guide on Building Public-Private Mix Partnerships to Support TB Control (30)
9. Guidelines on TB Contact Investigation (26)
10. Electronic Recording and Reporting for TB Care and Control (25)

New TB CARE I publications this quarter:

TB CARE I Newsletter
The fourth newsletter from TB CARE I, highlighting news, new projects, success stories, achievements and more.
http://www.tbcare1.org/publications/toolbox/recent/TB_CARE_Newsletter_June_2013.pdf

Guide on the Monitoring of TB Disease Incidence Among Health Care Workers
This guide for monitoring the incidence of TB disease among healthcare workers addresses issues such as stigma and work discrimination, and also provides practical recommendations on how to establish an effective monitoring system. This document is the result of years of operational research as well as debates and discussions organized by the WHO and TB CARE partners.
http://www.tbcare1.org/publications/toolbox/tools/hss/HCW_TB_Incidence_Measuring_Guide.pdf

A Practical Handbook for National TB Laboratory Strategic Plan Development
This handbook is designed to guide simplified steps for national TB control program's to develop a TB-specific national laboratory strategic plan. It draws upon 'Guidance for Development of National Laboratory Strategic Plans: Helping to expand sustainable quality testing to improve the care and treatment of people infected with and affected by HIV/AIDS, TB and Malaria' and from the Global Laboratory Initiative's 'Roadmap for ensuring quality tuberculosis diagnostics services within national laboratory strategic plans'.
http://www.tbcare1.org/publications/toolbox/tools/lab/Laboratory_Strategic_Handbook.zip

Systematic screening for active tuberculosis: Principles and Recommendations
This document sets out basic principles for prioritizing risk groups and choosing a screening approach. It also emphasizes the importance of assessing the epidemiological situation, adapting approaches to local situations, integrating TB screening into other health-promotion activities, minimizing the risk of harm to individuals, and engaging in continual monitoring and evaluation. It calls for more and better research to assess the impact of screening and to develop and evaluate new screening tests and approaches.
http://www.tbcare1.org/publications/toolbox/tools/hss/Systematic_Screening_for_Active_Tuberculosis.pdf

All the publications can be found on the TB CARE I website here:
http://www.tbcare1.org/publications/

TB CARE I tools brochure
This is a reference guide for all the published tools, it contains each tool broken down by technical area, a description of each and a link to the download. It is updated on a monthly basis:
http://www.tbcare1.org/publications/toolbox/tools/TB_CARE_Publications.pdf

3. Core Projects

Since the start of TB CARE I (Year 1-3), the coalition has implemented 108 core projects; as of June 2013, 70 projects are fully complete (68%). Figure 2 shows the status of completion for projects by project year. Excluding cancelled projects, 100% of Year 1 projects, 81% of Year 2 projects and 26% of Year 3 projects are complete. All the completed tools can be found on the TB CARE I website (http://www.tbcare1.org/publications/).

Figure 2: Status of core projects started in Year 1-3

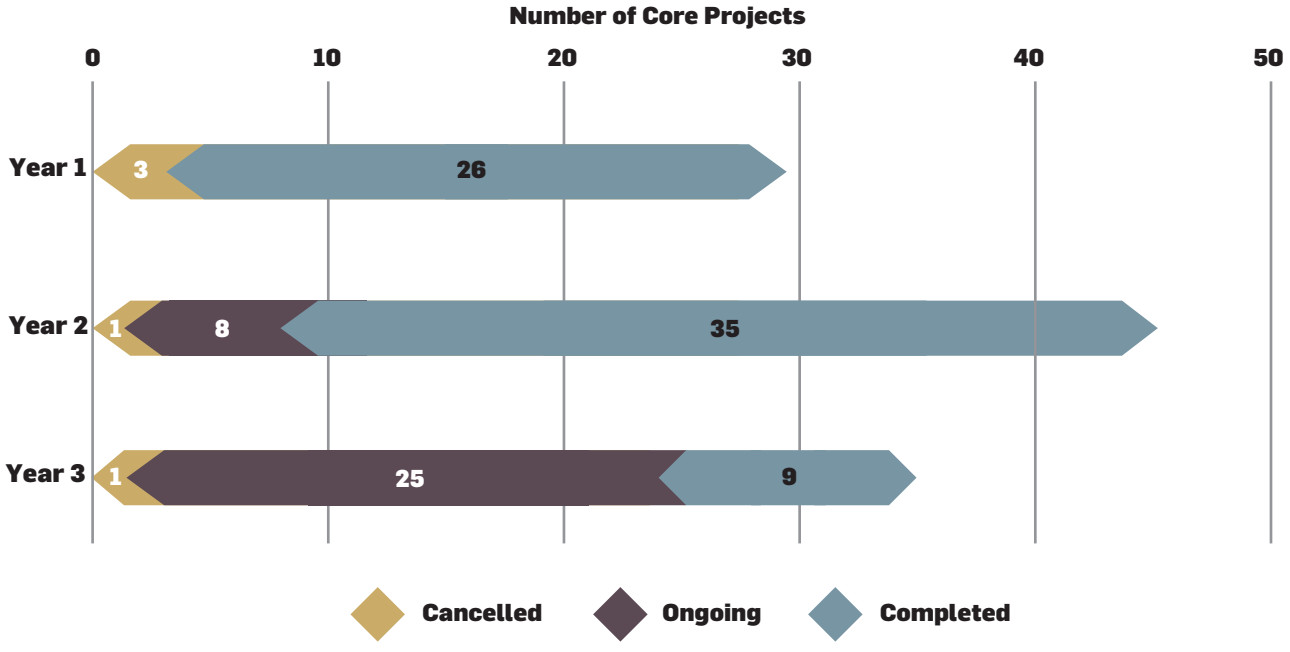


Table 3 below provides an update on the 28 Year 3 projects and the three Year 2 projects that were completed this quarter.

Table 3: Overview of approved Year 3 core projects and Year 2 projects completed during the quarter

Technical Areas	Code	Partners	Title	Expected Deliverable(s) Year 3	Progress to date	% Complete	Level of spending
1 Universal Access	C1.3	**KNCV**	RHAP TB in mining project	Coordination visits to Mozambique (2) and Botswana (3) 6 Regional visits to SADC and TB CARE I countries HQ meeting (1)	Situational analyses of TB in the mines conducted in Mozambique and Botswana, private partnership mix (PPM) linkages established between the Mining Companies and the NTP, and the Patients' Charter for Mineworkers was introduced. Project is closed after departure of Project Director.	50%	74%
	C1.13	**ATS** WHO KNCV MSH	ISTC revision	Document. Develop international standards for TB care ed. 3	Draft recommendations for ISTC edition 3 were revised by the Steering Committee in May and presented to the WHO TB Strategic and Technical Advisory Group in June. A draft 3rd edition will be prepared for a pre-launch stakeholders meeting in November.	75%	93%
	C1.16	**ATS** WHO	Contact investigation guidelines	Tools for use with guidelines for evaluation of contacts to infectious cases of TB	A Workshop on the Guidelines for Evaluation of Contacts to Infectious Cases of TB was held in June in Marrakech, Morocco with representatives from Cambodia, Ethiopia, Haiti, Morocco, Myanmar, Namibia and Uzbekistan. Participants drafted preliminary operational plans for the next two years. Information was presented that will serve to inform development of a utilization guide including tools for the WHO Guidelines.	75%	100%
	C1.21	**WHO** KNCV ATS	Global PPM Workshop	Global PPM Workshop	The Global PPM workshop will be held in Bangkok, Thailand from 28-30 August 2013.	50%	21%
	C1.30	**ATS**	Performance assessment and feedback to improve TB Diagnosis	Validate performance evaluation approaches for the diagnosis of TB.	Validation sites have been selected in Tanzania and Indonesia. SOPs, tools and data collection forms have been developed and finalized for field testing and evaluation in each site. IRB approval is in process in each country.	50%	80%

2	Laboratories	C2.07	**KNCV**	Develop the Benin NRL to join SRL		Mirjam Engelberts (KIT) visited the National TB Reference Laboratory in Benin to continue the technical assistance towards ISO 15189 accreditation. By September a team will continue the technical assistance, including support for the management review and yearly quality planning.	33%	
		C2.09	**KNCV** JATA WHO	Capacity building for Xpert implementation & quality-ensured usage	Regional workshop in Africa to support quality of routine use of GeneXpert	Over 80 participants and 15 facilitators have been invited for the USG 2nd African Training Workshop on GeneXpert MTB/RIF from 23-25 July in Gaborone, Botswana.	70%	9%
		C2.10	**WHO** KNCV The Union	Global Forum on Xpert MTB/RIF Implementation	Convene global forum for sharing experiences from countries & partners implementing Xpert/TB RIF	The Global Forum on Xpert MTB/RIF implementation was convened at Les Pensierès Veyrier-du-Lac, France, April 16-17, 2013. (http://www.stoptb.org/wg/gli/meetings.asp)	100%	96%
		C2.11	**WHO** JATA KNCV	Internationally standardized implementation and training material for GeneXpert	Harmonized training tools and availability of GeneXpert training materials	A draft training package was prepared and reviewed by a technical working group and the GLI in April. A larger peer review meeting of GLI partners will be convened at WHO in Quarter 4 to review and endorse the final training package.	70%	28%
		C2.12	**The Union** KNCV MSH WHO	Update of TB CAP lab tools	Updated lab training tools Microscopy guide	An advanced second draft is currently under review. A package of standard operating procedures (28 total) was developed and submitted to WHO/GLI for review at the beginning of July.	70%	47%
		C2.13	**WHO**	ASLM -QMS workshop for NRL managers	Participation of 6 NRL managers in a 3-day workshop in South Africa	Completed	100%	100%
		C2.15	**KNCV**	Update GLI stepwise process towards accreditation		Preliminary discussions about the exact outline have been conducted. Activities on tool development will start next quarter.	5%	0%
		C2.16	**KNCV**	Guide for Xpert training materials		The project was approved on May 29, 2013. Draft content is available for 5/12 proposed modules. Modules will be completed and facilitators and customization guides will be developed.	20%	0%
		C2.20	**WHO**	Consultants' manual for TB laboratory consultants	Consultants manual for TB lab consultants	Consultant manual under development. Draft manual will be available for peer review at a meeting of GLI partners in July 2013.	75%	3%

Technical Areas	Code	Lead Partner	Microscopy guide	The consensus workshop was successful and revisions are in process.	Progress to date	% Complete	Level of spending
3 Infection Control	C3.05	**FHI 360** KNCV McGill PiH	TB-IC demonstration Ndola district	Safe work practices reducing TB transmission in 15 health facilities	TB CARE I provided leadership in a two day district level meeting held in June to review the status of implementation of IC activities in the 15 facilities and to agree on activities to be included in the 2014 district action plan with district level financing. Compliance with TB IC practices continued to improve this quarter; the overall project target of 80% was reached with the compliance of individual facilities ranging from 71% to 84%. The screening of health care workers (HCWs) has also been scaled up in 12/15 (80%) health facilities. A total of 140 HCWs were screened during the reporting period of which 8 were presumptive TB (7%) and one was diagnosed (1%). HCW screening is anticipated to start in the two hospitals by July 2013. The FAST strategy was also introduced to Ndola Central Hospital and Twapia Clinic. The two facilities have adapted the SOPs provided by the TB CARE II partnership for use in the implementation process.	91%	65%
	C3.06	**PIH** KNCV MSH	FAST Core Package for TB-IC	Final FAST Core Package	See 3.05 for an update on FAST implementation in the Ndola project.	10%	4%
	C3.07	**PIH** KNCV MSH	Building Capacity for IC	Ten IC consultants ready to perform independent missions with distant support by mentors. Mentored field visits.	During this quarter no mentored field visits were planned or conducted. Two mentored field visits are planned for quarter 4 (Zambia & Vietnam).	5%	27%
	C3.08	**URC** KNCV	Occupational Safety approach	Attend a consensus workshop on occupational safety in South Africa by URC	The workshop is scheduled for August.	5%	0%

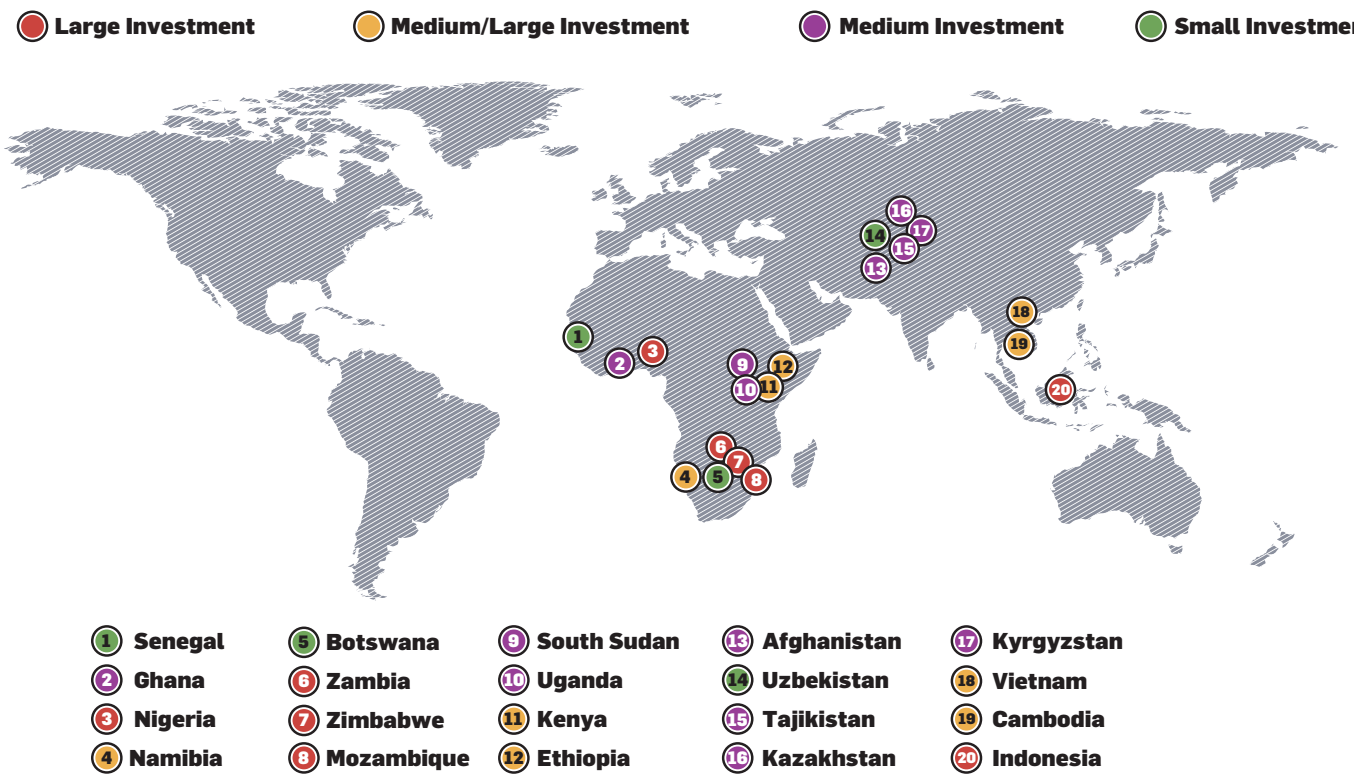
Technical Areas	Code	Lead Partner	Microscopy guide	The consensus workshop was successful and revisions are in process.	Progress to date	% Complete	Level of spending
4 PMDT	C4.04	**KNCV** MSH	Assessing the costs faced by MDR-TB patients	Consensus workshop to define recommendations for policy	For the Indonesia report, all data have been collected, entered and analyzed. A full report will be available next quarter.	40%	18%
	C4.06	**TB CARE II** KNCV The Union	TB DR Learning site	Training: 3-4 series of webinars and tool: Collection of 12-18 new cases in website for download and direct discussion with experts	On track with DR TB case discussions every 2-3 weeks.	75%	94%
	C4.9	**TB CARE II** KNCV	Drug-resistant Tuberculosis Fellowship	Fellowship PMDT. Training of TB clinicians in the clinical and programmatic aspects of MDR-TB management in Rwanda CoE	The fellowship program is postponed until August 2013.	30%	13%
	C4.10	**TB CARE II** KNCV The Union WHO	TB CARE partners' PMDT scale-up meeting	PMDT scale up meeting TB CARE priority interventions for PMDT scale up	Completed	100%	75%
	C4.11	**TB CARE II** KNCV The Union WHO	Pocket guide for the Medical Management of MDR-TB	Pocket guide for clinicians treating MDR-TB in English	Pocket guide is being finalized and translation to French and Chinese will begin next quarter.	50%	13%
	C4.12	**KNCV** WHO	Develop guidance for engaging and implementing PMDT in private sector	Development of guidance for linkage of PPM and PMDT	Protocols and questionnaires were developed and field tested in Kenya. Two more countries (Bangladesh and Indonesia) are to follow in Quarter 4.	60%	40%
6 Health Systems Strengthening	C6.12	**WHO** ATS MSH PMU	Toolkit for TB strategic planning	Toolkit on TB Strategic planning	The generic framework and training materials were drafted and reviewed during a July meeting on the Global Fund New Funding Mode in Geneva.	50%	13%

Technical Areas	Code	Lead Partner	Microscopy guide	The consensus workshop was successful and revisions are in process.	Progress to date	% Complete	Level of spending
7 M&E, OR and Surveillance	C7.05	**MSH** KNCV PMU Measure	Support M&E efforts of NTPs	Five day training in TB surveillance, Training curriculum on TB data management and TB data use developed, in-person TB data training for M&E staff in CAR-region and assessment to four selected countries.	32 staff from TB CARE I, TB CARE II, and TB TO 2015 countries participated in a five-day USAID-funded workshop in Nairobi, Kenya entitled, "Innovations in Data Quality". Participants developed mini M&E plans for their countries, which will be incorporated into APA 4 workplans. The final in-person training curriculum on TB data management will be ready next quarter.	90%	53%
	C7.08	**WHO** KNCV	Making use of Surveillance checklist	Assessment of TB surveillance followed by a workshop to share and discuss results	The workshop was conducted in Accra, Ghana from April 29-May 3 and a full report is available on the website of the Global Task Force on TB Impact Measurement. The surveillance checklist (standards and benchmarks) will be applied in Ethiopia (August) and Rwanda (planned for mid-October to include national TB prevalence survey results). Extension approved.	100%	70%
	C7.09	**KNCV** MSH PMU WHO	Data quality handbook	Development of a data quality handbook	C7.09 has been merged with C7.10.	Cancelled	60%
	C7.10	**WHO** KNCV MSH	Handbook on analysis of TB surveillance data	Handbook on analysis of TB surveillance data	A detailed outline was developed (seven chapters). The first four chapters will be in near final form by the end of September. The last three chapters will then be developed, building on the first four. The product will be completed by end of December 2013.	20%	24%
Overarching projects	C0.02	**PMU**	LoE Advisory Group members	LoE Advisory Group members		50%	14%
	C0.04	**KNCV**	Country Directors meeting	Country Directors meeting	Completed	100%	37%
	C0.05	**KNCV**	USAID TB Program consultation	USAID TB Program consultation	Completed	100%	82%
	C0.06	**KNCV**	Booth Exhibition Vietnam	Exhibition booth Vietnam	Completed	100%	100%
	C0.07	**KNCV**	Dominican Republic	Dominican Republic	Completed	100%	76%
	C0.08	**KNCV**	Djibouti core	Djibouti core	See next tab under Small Regional projects	40%	0%
Completed Year 2 projects	C1.19	**The Union**	Childhood TB training	ToT for 10 people – NTP (1), national child TB expert (1) and district staff (2 from each of 4 districts) in Indonesia & Namibia Training in 4 districts in both countries	TOTs completed in Indonesia (September 2012) and Namibia (April 2013). Operational research was completed in Namibia.	100%	57%

4. Country Projects

TB CARE I currently has 19 active country projects; the Djibouti country project officially closed at the end of March, although limited activities continue through the regional mechanism (see pg. 23 for more information). Kenya completed activities this quarter in anticipation of close out in September 2013. Figure 3 displays the geographic distribution and investment size of TB CARE I country projects.

Figure 3: Map of TB CARE I Countries, as of June 30th, 2013



GeneXpert

TB CARE I has been investing financially and/or technically in GeneXpert scale up in 16 TB CARE I countries. In addition to ongoing in-country monitoring and support, the program has been collecting information every six months on the implementation and scale-up across all TB CARE I countries. Currently, there are 81 TB CARE I-funded Xpert machines in use and over 50,000 cartridges have been purchased.

As of March 2013, data obtained from Cambodia, Indonesia, Kazakhstan, Kenya, Nigeria and Vietnam showed that from the 4,776 successful tests performed on presumptive new cases, 985 (21%) were TB positive of whom 99 (10%) had a RIF+ result. Similarly, from the 13,043 successfully tested presumptive MDR-TB cases, 6,912 (53%) were diagnosed as having TB, among whom 2,208 (32%) had a RIF+ result (see Table 4).

Table 4: GeneXpert results stratified by presumptive TB or MDR-TB as of March 2013 in six TB CARE I countries where TB CARE I has supported both the purchase and implementation of GeneXpert machines

	Presumptive New TB					Presumptive MDR-TB				
Country	**Total successful tests**	**TB+ only**	**Rif+ (and TB+)**	**TB positivity rate***	**Rif res. rate****	**Total successful tests**	**TB+ only**	**Rif+ (and TB+)**	**TB positivity rate***	**Rif res. rate****
Cambodia	2,344	424	46	20%	10%	864	330	103	50%	24%
Indonesia	686	165	24	28%	13%	1,677	728	555	77%	43%
Kazakhstan	76	11	15	34%	58%	2,400	543	576	47%	51%
Kenya	244	64	1	27%	2%	1,468	593	34	43%	5%
Nigeria	919	151	8	17%	5%	4,348	1,090	432	35%	28%
Vietnam	507	71	5	16%	7%	2,286	1,420	508	84%	26%
Total	**4,776**	**886**	**99**	**21%**	**10%**	**13,043**	**4,704**	**2,208**	**53%**	**32%**

**TB positivity rate (all TB+/all successful Xpert tests)*
***RIF resistant rate (Rif+/all TB+)*

A comprehensive report on GeneXpert roll-out in TB CARE I countries is expected in the fall of 2013.

Programmatic Management of Drug Resistant TB (PMDT)

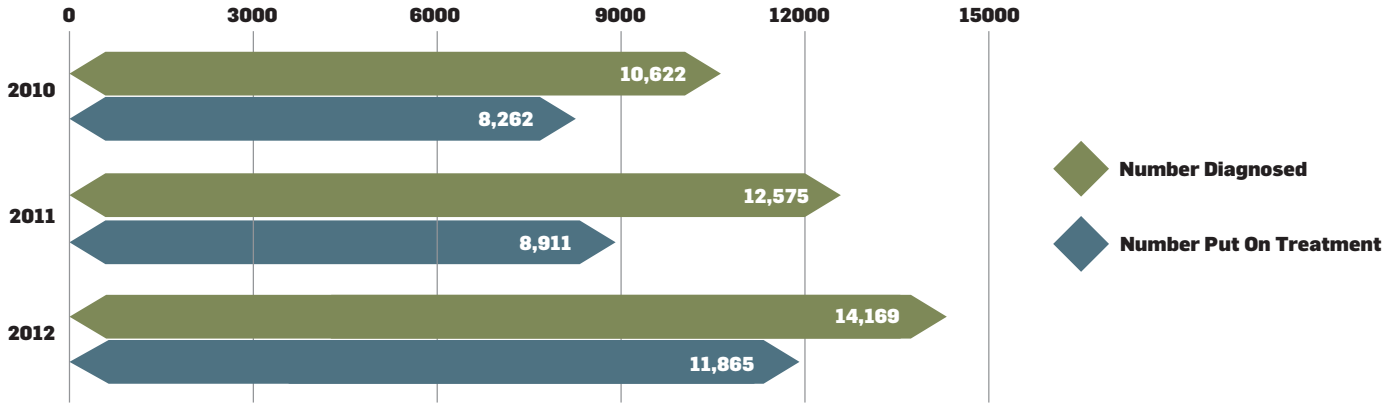
Based on data obtained from NTPs in all TB CARE I countries, it is clear that progress is being made in both the diagnosis of MDR-TB and the initiation of second line treatment. Table 5 summarizes the number of MDR-TB cases diagnosed and put on treatment from 2010 to 2012, as well as preliminary numbers for the first two quarters of 2013.

In 2012, 14,169 MDR-TB cases were diagnosed across all TB CARE I countries, with 11,865 being put on treatment. Compared to 2010 figures (i.e. the start of TB CARE I), diagnosis increased by 33% and treatment initiation rose by 44% in 2012. Yearly totals across all countries are summarized in Figure 4 showing an increasing trend in diagnosis and treatment initiation. As the reported numbers for 2013 are preliminary and incomplete, it is too early to comment on global PMDT progress in 2013. However, several country-specific achievements are documented in the country highlights section of this report (i.e. Ethiopia, Indonesia, Kazakhstan and Uganda).

Table 5: Number of MDR-TB cases diagnosed and put on treatment, 2010-2012
(2010- 2011 data are from the 2012 WHO Global TB Report; 2012 data reported from countries during TB CARE I quarterly reporting process, as of June 2013.)

Countries	2010		2011		2012		Jan-Mar 2013		Apr-Jun 2013		Jan-Jun 2013	
	#dx	# put on trt	#dx	# put on trt	#dx	# put on trt	#dx	# put on trt	#dx	# put on trt	#dx	# put on trt
Afghanistan	19	0	19	21	38	38	13	13	8	8	21	21
Botswana	106	114	46	46	51	44	19	40	9	9	28	23
Cambodia	31	38	56	57	117	110	22	16	29	28	51	44
Dom. Rep	108	114	117	107	54	56						
Ethiopia	140	120	212	199	200	317	113	105			113	105
Ghana	4	3	7	2	38	2		4		3	0	7
Indonesia	182	142	383	260	610	438	180	195	202	240	382	435
Kazakhstan	7,387	5,705	7,408	5,261	7,608	6,525	1,777	1,719			1,777	1,719
Kenya	112	118	166	156	206	206	22	22			22	22
Kyrgyzstan	566	556	806	492	904	644	261	71	516	429	777	500
Mozambique	165	87	283	146	58	215		57		42	0	99
Namibia	214	214	192	242	216	216	85	85			85	85
Nigeria	21	23	95	38	185	113				75	0	75
South Sudan			6	0	1	0	0	0			0	0
Tajikistan	333	245	604	380	780	536	195	125	277	71	472	196
Uganda	93	10	71	7	109	44	30	28	38	41	68	69
Uzbekistan	1,023	628	1,385	855	1,979	1,491					0	0
Vietnam	101	101	601	578	774	713		179		164	0	343
Zambia		0		0	70	52					0	0
Zimbabwe	17	27	118	64	171	105	73	29			73	29
Total	**10,622**	**8,262**	**12,575**	**8,911**	**14,169**	**11,865**	**2,790**	**2,662**	**1,079**	**1,110**	**3,869**	**3,772**

Figure 4: MDR-TB cases diagnosed and put on treatment in TB CARE I countries, 2010-2012
(2010-2011 data are from the 2012 WHO Global TB Report; 2012 data reported from countries during TB CARE I quarterly reporting process, as of June 2013.)



4.1 Afghanistan

MSH is the lead partner in Afghanistan with collaboration from WHO and KNCV; community-based DOTS activities are subcontracted to BRAC. The project works in universal and early access (UA), infection control (IC), health system strengthening (HSS) and monitoring & evaluation (M&E).

This quarter, collectively 30,000 presumptive TB cases were screened for TB in 13 provinces; seven percent (1,857) were smear positive TB cases and 4,176 were notified (all forms) and put on treatment. Community-Based DOTS (CB-DOTS) was implemented in 13 provinces through subcontracts with TB CARE I. In total, 1,189 presumptive TB cases were referred by community health workers (CHWs) for diagnosis and among them 94 (8%) turned out to be sputum smear positive; 466 TB patients receive their DOTs from CHWs in four provinces.

Community health worker observes TB patient taking her daily pills

Urban DOTS was expanded to six additional public and private health facilities (HF) in Kabul. Thus, DOTS coverage reached 74 health facilities/ hospitals, which covers 67% of all existing HF in Kabul.

The Annual National Evaluation workshop was conducted with technical and financial support from TB CARE I in May (143 attendees). During this three days workshop, TB program performance over the past year was reviewed, challenges were identified and targets set for the coming year (2013). The participants committed to sustaining a 5% increase in TB case notification for the coming year and increasing case notification for all forms of TB from 116 to 123 per 100,000 population.

TB CARE I assisted the NTP in conducting the Quarterly Review workshops in all 13 USAID- supported provinces. They reviewed their performance compared to the previous quarter, shared successes, identified challenges, received feedback and set targets for the next quarter.

TB CARE I-Afghanistan conducted a five-day Project Cycle Management Course for 29 staff members from central and provincial teams.

4.2 Botswana

GeneXpert Training in Ghantsi Primary Hospital

KNCV is the lead partner and sole implementer in Botswana. In Year 3 the project focuses on UA and laboratories.
The in-country Senior Technical Advisor actively contributed to the development and finalization of a research proposal to conduct an evaluation of community TB care to determine the extent to which the different approaches of community-based TB care (CTBC) in Botswana have contributed to the attainment of TB control efforts in the country. This research will guide the program to adopt an appropriate CTBC approach to be scaled up, taking into consideration the decline in funding in the near future.

TB CARE I in collaboration with partners supported the roll out of GeneXpert to five facilities and the training 10 laboratory technicians. TB CARE I helped to finalize the national Xpert rollout plan, Xpert training materials and the Xpert algorithm. The project will continue to support the NTP with further roll out of 20 additional instruments throughout the country.

The project supported the NTP in addressing TB control in the mining sector in Botswana. Two mining companies were visited to look at TB/HIV activities and linkages to the NTP. The NTP will follow-up on the recommendations from the mission.

4.3 Cambodia

JATA is the lead partner in Cambodia, with collaboration from FHI 360, KNCV, MSH and WHO. The project in Year 3 has activities in seven technical areas (UA, laboratories, IC, PMDT, TB/HIV, HSS and M&E).

During this quarter, annual mass screening of prisoners was conducted in three prisons - Svay Rieng, Prey Veng and Kg Cham. In total, 1,588 prisoners were screened using an algorithm which includes a symptom checklist, chest x-rays, smear microscopy, and Xpert MTB/RIF assays. Two percent (38) of screened 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 five days to deliver sputum test results since July 2012. 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 results are expected by September 2013. In addition, an improved SMS system will soon be launched, that will enable messages to be sent out in a package instead of individual text messages.

Active Case Finding in Prisons

TB CARE I has made intensive efforts to improve the diagnosis of childhood TB; activities include the development and introduction of new diagnostic algorithms to promote the use of chest x-rays for pulmonary TB diagnosis, the organization of numerous trainings, and follow-up supervision at sites. Data collected during the quarter indicate improvement in diagnostic practices: 3,183 children with presumptive TB were referred from health centers to referral hospital for diagnosis. Five hundred pediatric TB cases were diagnosed this quarter of which 403 (81%) were classified as extra-pulmonary TB and 97 (19%) as pulmonary TB. In the past, around 96% of all childhood TB cases were extra-pulmonary TB.

A TB CARE I consultant assisted with the development of the new National Strategic Plan for TB Control (2014-2020). This new plan will help the country with resource mobilization from all possible funding sources, particularly from the new funding mechanism of the Global Fund.

4.4 CAR-Kazakhstan

KNCV is the lead and sole implementer of TB CARE I activities in Kazakhstan where activities are carried out in six technical areas (UA, laboratories, IC, PMDT, HSS and M&E).

Akmola Oblast continues pilot implementation of full outpatient care for TB/MDR-TB patients in accordance with the approved protocol. Between January-June 2013, 82 TB/MDR-TB patients were put on full outpatient care (14% of all patients put on treatment), which puts the project on track to reach the target of 20% of MDR-TB patients on outpatient care by the end of Year 3. Two trainings on PMDT were conducted for health specialists from the prison and general health services (TB, HIV and the Sanitation and Epidemiologic Authority (SES)) from East-Kazakhstan and Akmola oblasts to provide them with the latest updates on the clinical management of TB, TB/HIV, and DR-TB in accordance with the national PMDT guidelines. The newly updated protocols were distributed to the practitioners to use in practice.

Between January-May 2013, 3,141 Xpert tests were conducted in four Xpert sites. Ninety percent of tests were successful. The MTB positivity rate was 44.5% and the Rifampicin resistance rate was 46.25%.

In April, a regional planning, monitoring and evaluation workshop was conducted for managers and M&E specialists from the NTP, the prison sector, Global Fund, WHO and TB CARE I country staff from Kazakhstan, Uzbekistan, Tajikistan and Kyrgyzstan. It was lead jointly by the TB CARE I PMU and the TB CARE I Regional M&E Officer.

TB CARE I PMDT consultant conducts on-the-job training with MDR- TB nurses at Talas Oblast TB Center

4.5 CAR-Kyrgyzstan

As the lead and sole implementer of TB CARE I activities in Kyrgyzstan, KNCV implements activities in six technical areas (UA, laboratories, IC, PMDT, HSS and M&E).

Since April 2013, two pilot facilities (FMC #9 & #14) with support of TB CARE I began to enroll smear negative TB patients in the intensive phase of treatment in outpatient care in Bishkek City.

The Regional TB CARE I IC Officer with support from the local country office and SES specialists conducted monitoring visits and risk assessments in seven oblast TB centers and provided on-the-job training for previously trained IC-responsible

specialists with newly delivered TB-IC equipment.

The regulations on palliative care for TB patients were approved by the Ministry of Health (MoH) in May. The annex to the guidelines on palliative care for TB patients and instructions on palliative care for caregivers of TB patients finalized with technical support from TB CARE I.
The regulations on decentralization of the management of M/XDR-TB, which are based on the establishment of regional consiliums, were finalized by TB CARE I with representatives from the Central and Regional Consiliums in Osh and Jalal Abad. The regulations were finalized, discussed and submitted to the NTP for approval and for further submission to the MoH for approval.

The heads of the oblast TB centers, SES specialists and M&E specialists improved practices and update knowledge during the training "Quality Data Management and Data Analysis" for decision makers and M&E specialists conducted in June by TB CARE I consultants.

4.6 CAR-Tajikistan

KNCV is the lead and sole implementer in Tajikistan where it implements activities in six technical areas (laboratories, IC, PMDT, TB/HIV, HSS and M&E).

During this quarter the protocol on strengthening outpatient care and providing psycho-social support (PSS) for TB patients, the PSS monitoring tool, and the TB patient psychosocial profile card were discussed with technical working group (TWG) members. The finalized draft documents on outpatient care and PSS were approved by the NTP, which means that piloting the TB CARE I model of outpatient care can start in the pilot districts of Dangara and Temurmalik next quarter. In parallel to this, training of medical workers, community members, religious leaders, volunteers and local activists has continued to ensure effective implementation of this model in the TB CARE I pilot sites.

Meeting on the sample transportation protocol in TB CARE I pilot sites.

To ensure a sufficient workload for Xpert, as well as good quality sputum samples for Xpert testing, the project developed a sample transportation protocol for Dangara, Temurmalik and Rasht area. Using GeneXpert, 28 presumptive TB and 30 presumptive MDR-TB cases were tested during the quarter. The Xpert MTB positivity rate was 28.3%, and the Xpert RIF resistant rate was 26.7%.

The protocol on clinical algorithms for the treatment of side effects from second line TB drugs (SLDs) was developed by an external consultant, taking into account the latest international guidelines and the country legislative framework. Next quarter, the developed protocol will be discussed and finalized with the technical working group on TB/MDR-TB.

4.7 CAR-Uzbekistan

WHO is the lead partner in Uzbekistan with KNCV as a close collaborating partner. Activities in Year 3 cover six technical areas (UA, Laboratories, IC, PMDT, HSS, and M&E).

The members of the National TWG on the development of an outpatient model of treatment visited Kazakhstan to study their psychological and social support to TB patients. Study tour was organized for three CAR countries – Kazakhstan, Tajikistan and Uzbekistan. As the outcome of this visit, the TWG submitted a brief concept note to MoH on the establishment of psycho-social services for TB patients in the country.

A team of national TB experts (three doctors and one engineer) attended the advanced training for TB-IC coordinators and engineers in Vladimir in April 2013. After attending this course, participants initiated updating the national SES regulatory document according to new national TB-IC guidelines and international standards.

4.8 Ethiopia

KNCV is the lead partner in Ethiopia, working closely with collaborating partners MSH, WHO and The Union, as well as subcontractor German Leprosy and TB Relief Association. The Year 2b and Year 3 work plans have activities in all eight technical areas.

Physical Health Infrastructure Directorate (PHID) of MoH has developed the first guideline on health facility design standards to address infection control issues in architectural design of the health facilities in the country. TB CARE I hosted the guideline development process and also provided technical assistance. The drafted guideline will be reviewed by architects of the Regional Health Bureau during the upcoming TB-IC training in July 2013.

A total of 10 MDR-TB treatment centers have opened in six regions since a pilot program at St. Peter TB Specialized Hospital began in 2009. Geda Health Center, one of the MDR-TB expansion sites renovated by TB CARE I, is ready to begin service. As part of the preparation process, TB CARE I supported an orientation workshop on program management and to address MDR-TB misconceptions.

The NTP completed the revision process of TBL and TB/HIV guidelines and printed 10,000 copies of the guideline through the support of TB CARE I. TB CARE I continued its support by organizing the first TOT on TB and TB/HIV in collaboration with Oromia Regional Health Bureau to ensure the availability of a pool of trainers for the region.

TB CARE I assisted the NTP to conduct a financial sustainability exercise of the TB program to identify potential funding sources at local level, gaps and potential support areas that sustain the already existing system in the country.

4.9 Ghana

MSH is the lead partner in Ghana with support from KNCV and WHO as collaborating partners. The Year 3 work plan focuses on six technical areas (UA, laboratories, IC, TB/HIV, HSS and M&E).

Monitoring team conducting on-the-job training for TB coordinators at St. Dominic Hospital-Eastern Region

The implementation of intensified hospital-based TB case detection activities continued in the six hospitals in two districts of Eastern Region. Overall a total of 285 (SS+=152; 53%) TB cases were detected during the first six months of 2013. This represents a 48% achievement of the 2013 target of 592, which suggests the target likely will be achieved or exceeded. Lessons learned and best practices are being shared with other regions and districts. Some of these lessons will be incorporated into the new five-year strategic plan as well as be part of the Phase II work plan for the Global Fund R10 Grant.

A TB case detection documentary has been produced. The documentary highlights the need for early TB case detection and improved clinical care for TB patients. The documentary will be shown at the various health facility outpatient departments (OPDs) and will also be used as an advocacy tool for increased political commitment for TB control services by government and development partners.
22

TB CARE I supported monitoring and supportive visits to Northern Region and Upper East Regions that included performing TB Data Audits using a Rapid Data Quality Assessment tool. Lessons learned were presented at the Global TB CARE I M&E Workshop held in Nairobi-Kenya in June, 2013.

Operations research to evaluate the effectiveness of the TB referral systems has been conducted in Lower Manya Krobo District in Eastern Region. An initial analysis revealed that 28% (32/116) of TB patients that were referred before the start of TB treatment did not reach the referral facility. These are likely initial defaulters as they are not captured by the NTP.

TB CARE I continues to provide support (data management) to the on-going National Tuberculosis Prevalence Survey. As of the end of June 2013, 40 out of 98 clusters have been completed. A total of about 25,000 clients (sample size of 64,000) have so far been reported to have participated in the survey, which suggests a participation rate of at least 80% will be achieved.

Between March and May 2013 a total of seven confirmed MDR-TB patients have been started on SLDs. TB CARE I is providing living support to offset transport and food costs incurred by these MDR-TB patients for the purpose of achieving cure.

4.10 Indonesia

Indonesia is the largest of the TB CARE I countries in terms of financial investment; KNCV is the lead partner with collaboration from partners ATS, FHI 360, JATA, MSH, The Union and WHO. TB CARE I-Indonesia works in all eight technical areas.

The PMDT expansion was accelerated with intensive support from TB CARE I. At central level, the expansion progress included the update and the endorsement of National PMDT guidelines with Ministerial Decree. Nineteen new PMDT sites were trained with GF funding, facilitated by TB CARE I consultants. A total of ten PMDT treatment centers, three sub treatment centers and 385 satellites have been established in 11 provinces to date. This resulted in a significant increase in number of MDR-TB patients enrolled; 435 patients were enrolled on MDR-TB treatment in the first half of 2013 – roughly the same number enrolled during all of 2012. Among the new sites, a PMDT treatment center was established in Papua. The new site in Papua will support increased access for patients in remote areas.

All 17 GeneXpert machines procured with TB CARE I support have been installed and sputum examination is currently ongoing at those 17 laboratories. This quarter, 1,348 cartridges have been used for the screening of 1,308 presumptive TB cases using Xpert.

Among them, 822 (62%) were presumptive MDR-TB and 486 were HIV-positive presumptive TB cases. In total, 257 Rif+ cases were detected (245 were from presumptive MDR-TB, 12 were from presumptive HIV/TB). The Rif-resistant cases detected during the first semester of 2013 are 28% higher than those detected in all of 2012.

During the quarter, nine laboratories received panel testing results for DST. Five laboratories passed the EQA activity for first and second line DST. For the first time in Indonesia two laboratories achieved 100% for all drugs except streptomycin.

Technical assistance to Indonesia CCM was provided to advise on the improvement of financial management by contracting a financial expert. Within six weeks, the contracted expert delivered a comprehensive plan for strengthening financial management of GF principal recipients (PRs) and sub-recipients (SRs).

On-the-job training for a PMDT satellite center in a prison hospital

TB CARE I provided successful assistance to the NTP for laboratory procurement of 26 pieces of equipment and consumables for the National TB Prevalence Survey (NTPS). The NTPS was officially launched on April 14th. The field work and data collection for eight clusters have been completed. TB CARE I consultants provided technical assistance to prepare the data management system, including the IT systems. A designated full time data management staff for NTPS joined in May 2013.

Roll out of the initial phase of Isoniazid Preventive Therapy (IPT) for People Living with HIV (PLHIV) in Indonesia has been successfully implemented with assistance from TB CARE I. Regarding the enrolled patients, 281 PLHIV were screened for IPT eligibility, 216 (77%) were found eligible of which 11 patients refused to receive IPT. This resulted in a total number of 205 patients who were put on IPT (95%). By the end of May 2013, 167 (81%) patients had completed the six month regimen, 24 (12%) defaulted, two died, seven stopped because of side effects and four stopped for other reasons. Only one patient developed TB during IPT (after three months of IPT). TB CARE I will continue to provide support to NTP and NAP in scaling up IPT to all provinces in the coming year .

TB CARE I is supporting and assisting the NTP with increasing TB case notification from non- government care providers. From October 2012 - June 2013, hospitals (public and private), workplaces, private practitioners, and prisons have contributed to the notification of 29,996 (26%) out of 114,515 cases in TB CARE I areas.

4.11 Kenya

KNCV is the lead partner in Kenya; MSH is the only collaborating partner. Sub-agreements are in place with the Kenya Association for Prevention of TB and Lung Diseases (KAPTLD) and Kenya AIDS NGOs Consortium (KANCO). The project, which conducts activities in all eight technical areas, completed activities in June and will be closed out by September 2013.

TIBU, the electronic program management and reporting system developed with support from TB CARE I, has been rolled out in all 47 counties nationwide (100%). All District TB and Leprosy Coordinators (DTLCs) (257) and all Provincial TB and Leprosy Coordinators (PTLCs) (12) have been provided with and trained on how to use the TIBU system on tablet computers. To support the roll out of the system countrywide, TB CARE I procured 100 of these tablets. The TB program data is now integrated with the National Health Management Information System (HMIS) and the District Health Information System (DHIS2) for TB data sharing at the Ministerial level. The system can now generate cohort reports on case finding, treatment successes, MDR-TB incidence and mapping of specific TB issues. In addition, TB CARE I has used the payment component for supervision activities via mobile money transfer using M-pesa. So far, the TIBU system has been used to disburse payments amounting to over $470,000 to more than 500 beneficiaries (TB program staff and MDR-TB patients).

A close out meeting was held to highlight the achievements and reflect on lessons learnt during the implementation of the TB CARE I project in Kenya (Oct. 2010-June 2013). The meeting was attended by representatives of 18 organizations working on TB control activities in the country. Five major achievements including the operations support of the NTP, laboratory strengthening, engaging TB patients and communities, engaging the private sector and TIBU were highlighted.

4.12 Mozambique

FHI 360, the lead partner for Mozambique, works with collaborating partners KNCV and MSH on a dual TB/malaria workplan. The Year 3 workplan has activities in all eight TB technical areas, as well as malaria control.

TUBERCULOSIS

During the quarter, 75 new community based volunteers and 22 traditional healers were trained in CB-DOTS, suspect identification and referral systems. CB-DOTS trained CHWs referred a total of 7,292 presumptive TB cases and 7,186 malaria suspects. An additional 637 contacts of TB patients were also referred to health facilities. About 19% (1,386/7,292) of the referred presumptive TB cases were diagnosed with TB (all forms) of which 77% (1,061/1,386) were SS+ cases, 283 (20%) were SS-, and 42 (3%) were classified as having extra-pulmonary TB. Out of the 1,386 confirmed TB cases, 184 were HIV+ representing a co-infection rate of 13%. Compared to last quarter, an increase in diagnosis by 3% and 9% has been registered for new TB cases and new SS+ cases,

respectively. For malaria cases, 3,492 positive cases were diagnosed out of the total 7,186, representing 49% in case identification.

Four prisons (3 Regional and 1 Provincial - Niassa) were visited to assess TB control and infection control mechanisms in place; information collected will be used to strengthen TB interventions and strategies in prisons nationwide.

TB CARE I provided assistance to the NTP in the revision and updating of M&E tools, the MDR-TB database and the manual for the treatment and care of DR-TB patients. The DR-TB supervision checklist was developed and tested in two provinces of Zambezi and Maputo during supervision visits. The checklist is being reviewed and adapted and will be used for all subsequent DR-TB supervision visits. The PMDT national strategy was finalized and submitted for approval, and the PMDT Operational Plan and budget will soon be completed as part of the process.

The TB CARE I annual meeting was held in June 2013 and participants included seven NTP provincial supervisors, 11 implementing agencies' representatives, 13 TB CARE I staff (FHI 360, MSH & WHO) and two MoH central level staff. The meeting was an opportunity to bring together major TB stakeholders from the TB CARE I target provinces to discuss and formulate common strategies to mitigate the spread of TB as well as guarantee timely diagnosis and successful treatment outcomes.
A TB CARE I consultant provided assistance to the NTP in forecasting and quantification for the next three years.

MALARIA

Two integrated malaria visits (laboratory & clinical) were conducted in two provinces (Cabo Delgado and Tete). Eight districts were visited and health clinicians and laboratory technicians received on-the job training in the preparation and administration of parenteral artesunate. For the first time findings and recommendations have been compiled in electronic form based on the approved supervision manual. Compilation of findings electronically will facilitate documentation, follow up and future referencing.

4.13 Namibia

KNCV is the lead partner in Namibia and collaborates with WHO and The Union on the Year 3 work plan. Activities are implemented in six technical areas (UA, IC, PMDT, TB/HIV, HSS and M&E).

The project co-financed and provided logistical support for a visit from U.S. Global AIDS Coordinator, Eric Goosby, to Namibia; TB CARE I helped organize a ceremony to present certificates to former TB patients in Khomas Region, a tour of various projects and a public lecture at the University of Namibia School of Medicine.

TB CARE I participated in a series of Technical Task Force meetings for Global Fund Single Stream Funding Phase 2 renewal; a core writing team was identified in which TB CARE I played an important role in providing logistical, financial and technical support. A writing retreat was held for the finalization and timely submission of this proposal. Two technical advisors from TB CARE I (for Epidemiology/M&E and PMDT) were part of the writing team.

Coordinated and provided logistical support for TB/HIV technical working group meetings in which the main discussions centered on the new TB/HIV OGAC project implementation. The Project Coordinator and M&E Officer, recruited through TB CARE I support, were formally introduced to the TWG and other stakeholders.

4.14 Nigeria

KNCV is the lead partner for Nigeria and works closely with collaborating partners, FHI 360, MSH and WHO. The Year 3 work plan focuses on five technical areas (UA, laboratories, PMDT, HSS and M&E); a COP work plan covers four areas (TB/HIV, TB-IC, HSS and M&E).

TB CARE I provided national and international technical support in the mid-term evaluation of the Nigerian TB strategic plan covering the following thematic areas, PMDT, Lab, Human Resource Development and M&E. The evaluation identified issues such as low case detection; inadequate microscopic coverage to achieve case detection; weak childhood TB case management; low ART uptake among co-infected TB patients; weak PMDT; and the need to strengthen the M&E system. The final report was made available and utilized in Year 4 planning.

Also this quarter, the project reached 50% achievement in the establishment of PPM DOTS (60) centers in six states in collaboration with the NTP. Patients support was also provided for 50 MDR- TB patients enrolled during the quarter.

A total of 1,946 sputa samples were tested by GeneXpert of which about 2.9% (57) were indeterminate. Further analysis of the data by risk groups indicates that 83% (1,614) of those tested were presumptive MDR-TB irrespective of HIV status; smear negative PLHIV constituted 14% (272) of total samples tested and other AFB smear negatives cases were 3% (57). Of those total sputa tested, about 207 (13%) were MTB with RIF resistance.

A major highlight during the quarter was the "Organizational Development/Institutional Strengthening" training course, which was organized to create insight in the process of organizational development and institutional strengthening and to explore ways to strengthen the TB network at State level resulting in better TB program results. As a result of the training, TB CARE I will be exploring with the NTP and USAID how the project can help TB control at the State level.

4.15 Senegal

The Union is the sole implementer for this small project. TB CARE I began conducting PMDT activities in Senegal at the end of 2012, however no activities were planned or conducted this quarter.

4.16 South Sudan

MSH is the lead partner in South Sudan and works closely with collaborating partners KNCV and WHO. TB CARE I-South Sudan implements activities in five technical areas (UA, laboratories, PMDT, TB/HIV and HSS).

SOPs to improve case detection have been introduced in Yei Civil Hospital. A tracking mechanism has been introduced which inspires health workers to screen all patients with a cough for TB and fully document patients' TB-related care. Between April-June 2013, 74 presumptive TB cases were screened for TB out of which 17 cases (23%) were diagnosed with TB (four confirmed TB, eight smear negative and five extrapulmonary TB cases) and put on treatment. The patients have been notified through the cough registers introduced in the wards.

Blinded re-checking of slides

EQA was established in 17% (8/48) of routine laboratories from four states. It is estimated that nine additional laboratories will be included in the subsequent quarter bringing EQA coverage to about 35% of laboratories with TB services.

A weak TB laboratory network can be attributed to the absence of a Reference Laboratory, Intermediate Laboratories and shortage of skilled lab personnel to implement External Quality Assurance (EQA). While efforts are being made to address these challenges, in the interim period, and with the support of TB CARE I, the quarterly review meetings have been used as a forum for lab personnel involved in TB control to meet and share experience and challenges facing their TB laboratory work. For effective participation, the meetings were conducted per state and involved a team of clinicians and lab personnel involve in TB from each TB management unit.

Quarterly review meetings have been established in four out of 10 states in South Sudan. The meetings provided the participants (79) an opportunity to discuss TB control in the states and provided a forum where participants can learn from each other and build capacity within the state.

4.17 Uganda

KNCV is the lead and sole implementing partner in Uganda. The project, which focuses on four technical areas (UA, PMDT, TB/HIV and HSS), completed the majority of activities in June and will be closing in December 2013.

The end of project conference for TB CARE I, held on June 21, 2013, drew more than 150 participants and was officially opened by the Minister of Health. The key achievements of the TB CARE I project shared during the workshop included: a renovated state-of-the-art MDR-TB isolation ward at Mulago National Referral Hospital; an increase in the number of MDR-TB patients put on treatment from about 20 to a cumulative total of 90 patients in the three MDR-TB supported sites (Mulago, Kitgum and Mbarara Hospitals); and an increase in the TB treatment success rate in Kampala from 49% to about 70%. The conference further highlighted some of the challenges that need to be addressed to ensure sustainability of the gains achieved from the TB CARE I project and these include: nutritional support for patients; logistical issues such as transportation of TB patients to treatment centers; robust laboratory services to enable quick diagnosis; an increase in the number of health workers and their remuneration; and the need to development policies and guidelines especially for IPT implementation.

The state-of-the-art MDR-TB isolation ward at Mulago Hospital was officially handed over to the hospital administration on June 18, 2013. This 39-bed capacity ward was remodeled, renovated and equipped with support from TB CARE I.

In the reporting period, 10 new private health facilities have been accredited by the NTP to provide TB services. Overall, there are now 48 public and private health facilities offering TB services in Kampala. TB CARE I staff helped the NTP and the TB facilities in Kampala to clean TB patient records and follow up patients via telephone that were lost to follow up or transferred out for better treatment adherence/outcomes. Among the 213 patients who had missed clinic appointments for drug refill between April-June 2013, 63% (134) were successfully contacted through phone calls. Of these 134, 100 (75%) patients returned to treatment at their diagnosing clinic while 10 (7%) patients had self-transferred to other facilities where they were continuing treatment.

With regard to follow up for treatment outcomes, a total of 1,034 new smear positive TB patients were registered in Kampala during the period April-June 2012. Of these, 256 patients had no specific treatment outcome data in the patient registers and were regarded as "lost to follow up". Through calls, 33% (86) were contacted and 63% (54) of these were confirmed to have completed treatment.

Another 113 of the same cohort (April-June 2012) were transferred out. Through phone calls and data exchange meetings, 57 patients of those transferred out were found to have completed treatment. Uncovering successful treatment completion of these 111 patients (54 and 57) contributed to the overall treatment success rate for the quarter. Without this innovative follow up method, these patients would not have been easily discovered to have completed their treatment. Health facility and division TB registers were accordingly updated.

For the April-June 2012 treatment outcomes, the data clerks supported data compilation for the 35 individual health facilities visited and for the aggregated division returns. Treatment success rate for new smear positive patients for that quarter was 69%, an increase of 8% from the first quarter of 2012 (61%). The default rate dropped to 24% for the Q2 2012 cohort from about 27% in Q1 2012.

TB CARE I is contributing towards the implementation of the PMDT Expansion Plan by using Geographical Information System (GIS) applications. During this reporting quarter, health workers from MDR-TB treatment sites, NTP, Kampala Capital City Authority (KCCA), TB CARE I and TRACK TB successfully completed a five-day GIS mapping training. Using TB CARE I procured equipment, the project also supported KCCA to map 88% (128/145) of public and private health facilities offering TB services in the five divisions of Kampala. The remaining facilities could not yet be mapped because of failure to trace their physical location by the mapping team. The GIS information provided through this exercise will guide KCCA in reviewing their current strategies to improve the TB treatment outcomes in Kampala as well as sustain the interventions done under the TB CARE I Project.

4.18 Vietnam

The TB CARE I Exhibition at the 4th Asia Pacific Region Conference of the IUATLD

KNCV is the lead partner in Vietnam and works with collaborating partners MSH and WHO. The Year 3 work plan has activities in seven technical areas (UA, laboratories, IC, PMDT, TB/HIV, HSS and M&E).

During the 4th Conference of The Union Asia–Pacific Region from April 10-13, 2013 in Hanoi, Vietnam, TB CARE I Vietnam organized a symposium on TB CARE I innovation and a TB CARE I Exhibition Booth to disseminate TB CARE I good practices achieved so far in Vietnam, Cambodia and Indonesia. The Symposium was the first event of the conference and drew an estimated 150 participants from all over East Asia and the Western Pacific. The Symposium had strong presentations on various technical areas supported by the TB CARE I program. Highlights include: the role of GeneXpert MTB/RIF in supporting scale-up of PMDT in Vietnam, Indonesia and Cambodia; the new management approach for childhood TB in Vietnam; the introduction of e-TB in Vietnam, and the rapid scale-up of PMDT over the past three years in Vietnam.

The NTP has been applying a new management approach for childhood TB (diagnosis at district level and management of child contacts at commune level) with TB CARE I support across four provinces in 35 districts and 619 communes. As of March 2013, 1,851 children with close contact to a case of smear-positive TB have been screened and followed up. Among these, 568 children are eligible for IPT and 334 children have been on IPT (59% of eligible children). So far, six children have been diagnosed to have extra-pulmonary TB (2) and sputum smear negative (4).

As of May 2013, 4,561 presumptive MDR-TB and TB cases have been tested by Xpert MTB/RIF, including PLHIV and children suspected of TB, in which 2,301 (50%) were MTB+ and 743 (16%) were MTB+/Rif Resistant.

Due to the success of the TB CARE I-supported TB specimen referral system in seven pilot sites, the NTP is now using Global Fund support to expand the system to 35 provinces. TB CARE I negotiated the formal agreement between the NTP and the Post Office to transport specimens. The Post Office agreed with NTP to provide sample transportation service to all districts and provinces in Vietnam.

Several drug supply and management activities were completed this quarter including supportive supervision for supply chain management, development of the training plan and materials (in close collaboration with the NTP) and drafting of the National Standards Guideline (procedure and detailed checklist/toolkit) for monitoring supply chain management at all levels.

4.19 Zambia

FHI 360 is the lead partner in Zambia and works closely with collaborating partners KNCV, WHO, and as of Year 2, MSH. Activities are implemented in all eight technical areas.

TB CARE I Zambia has trained a total of 183 people this quarter bringing the total number of people trained to 573 out of the annual target of 1,269 making it 45% of the training target achieved to date.

The NTP developed a national Advocacy Communication and Social Mobilization (ACSM) strategy in May 2013, with technical support from the national ACSM subcommittee and a TB CARE I consultant. Stakeholders from all ten provinces participated in the

development of the draft national ACSM strategy. An ACSM knowledge, attitude and practice (KAP) survey was done in three provinces by the subcommittee prior to the national workshop in April 2013. The survey provided baseline facility and community level information to the participants that developed the national strategy.

Group work during the National ACSM planning workshop in Ndola

The QUOTE TB Light (Patient Centered Approach) tool was conducted this quarter in six health facilities in the North Western Province via individual interviews and focus group discussions with TB patients. The highest ranking dimensions of quality of care were Support, Communication and Information, and Professional Competence. The lowest three dimensions were Stigma, TB/HIV relationship and Availability of Services.
A laboratory quantification workshop was held for national and provincial laboratory supervisors and key partners supporting the procurement of TB laboratory commodities. The TB CARE I logistics supply management tool was customized to the country setting with regards to stains/reagents formulation and the participants used the modified tool to forecast their supply needs based on the workload reports and the number of sites in the provincial laboratory network.

Facility-level assessment visits were conducted in all 15 health facilities and three prison sites that will participate in the WHO '3 Is' initiative. These visits have provided information on the level of TB and HIV services being offered at each facility. Feedback meetings were held in all the districts, followed by discussions on ways of addressing the challenges identified during the assessment visits. TB CARE I scaled up IC activities to 12 more facilities this quarter out of a target of 15.

4.20 Zimbabwe

Zimbabwe is led by The Union and has KNCV and WHO as collaborating partners. The Year 3 work plan focuses on seven technical areas (UA, laboratories, IC, PMDT, TB/HIV, HSS and M&E).

In the third quarter, 18 motorcycles -13 in urban areas and 5 in rural districts - transported a total of 52,245 samples to the laboratories of which 11,718 were sputum samples for tuberculosis examination. Of this number 10,170 (87%) were for diagnostic purposes and the rest were for follow-up. Of the diagnostic samples 239 (2%) were sputum smear positive. All diagnosed patients involved were started on anti-TB treatment.

MoH and TB CARE I staff conducting a routine data quality exercise in Beitbridge District

Using the three GeneXpert machines funded by TB CARE I and already in use, a total of 662 tests (cartridges) were conducted. A total of 104 TB patients were diagnosed with susceptible TB and a total of 17 Rif-resistant cases were detected and arrangements are in progress to have them all started on SLDs. Seven more Xpert machines and 20,000 cartridges were procured during the quarter and will be installed in the fourth quarter.

Two more integrated TB/HIV clinics started practicing directly observed treatment (DOT) for TB treatment, for a total of 22 to date; two clinics started initiating TB treatment in sputum positive TB patients, increasing the total to 20 to date; and two additional clinics started offering ART services. A total of 1,058 patients were started on ART in all 23 TB/HIV integrated care clinics in Quarter 3.
A national 3-week TB course was conducted for 25 participants mainly provincial, city and district doctors, nurses and laboratory personnel. The course participants were selected by Provincial Medical Directors (PMDs) with the aim of strengthening TB and TB/HIV services at provincial and district levels of health care.

A total of 37 districts were supported by TB CARE I to conduct TB and TB/HIV district program performance reviews with staff from their primary health facilities and technical support from the provinces. The meetings facilitated assessment of performance and made recommendations to resolve identified challenges.

Data quality audits were conducted in four districts. Although there were no major data quality issues identified, other challenges such as discrepancies between related registers were identified and corrected. This is an ongoing exercise aimed at strengthening the quality of data from district levels.

5. Regional Projects

In addition to the aforementioned country and core programs, TB CARE I currently manages four regional projects.

5.1 Center of Excellence (CoE) for PMDT

The CoE for PMDT project is implemented by KNCV. The CoE strategic plan for the next five years has been drafted and the existing CoE Business Plan has been revised.

The 4th international training on PMDT was held from May 20-24, 2013 at the School of Public Health of the National University of Rwanda, Kigali. A great achievement was exceeding the target of 15 participants by having 21 TB program staff and clinical specialists attended. Twelve participants from Ethiopia (3), Uganda (5), Ghana (2), Rwanda (4) and Tanzania (2) paid for the training while the CoE supported five participants from Ethiopia (1), Djibouti (1), Tanzania (1), Burundi (1) and Kenya (1). An improvement in participant knowledge was seen from the pre-test (72% average) to the post-test (85%).

The CoE workshop on PMDT at 19th Conference of the Union Africa Region was held in Kigali from June 19-22, 2013. The workshop was attended by 42 participants (target of 25 participants) from Burundi, DRC, Ethiopia, Liberia, Nigeria, Rwanda, Tanzania and Zambia. The high attendance was equally impressive as participants covered their own costs for attending the workshop. A draft framework on MDR-TB and HIV was developed and will be shared with NTP staff who attended the workshop.

The first TB/HIV training will take place from July 22-26, 2013.

5.2 East Africa Supranational Reference Laboratory (SNRL)

The Union, the lead partner, works closely with KNCV/KIT on the SNRL project. The largest accomplishment of the quarter was that full SRL status was officially granted to the East African SNRL at the GLI meeting, in the presence of a Uganda MoH representative. An inauguration ceremony of the new SRL is planned on July 11th with support from TB CARE I (see the TB CARE I website for stories and pictures from the event). Visits to Tanzania and Kenya to explore possible links are scheduled for next quarter.

In April 2013, a local consulting company was contracted to develop a Business and Marketing Plan for the Uganda Reference Lab. The expected end product of this assignment will be a complete Business and Marketing Plan clearly detailing tasks and responsibilities of each actor within the system, a financial and operational plan, and a plan for measuring performance and impact of the system. Before the official opening of the SRL on July 11, the first draft of the business plan was presented to TB CARE I and the SNRL.

5.3 ECSA (East, Central and Southern Africa)

The ECSA project is led by KNCV. During the quarter the two ECSA staff attended the CoE PMDT training and the 19th Conference of the Union Africa Region where they initiated discussions on regional cross border TB control. Two consultants were engaged to develop the ECSA HIV/AIDS, TB and other infectious diseases strategic plan and M/XDR-TB failure regional policy. The first drafts are expected to be presented at the NTP managers meeting for review and input.

ECSA also conducted two country missions to Zimbabwe and Lesotho. In Zimbabwe the lab capacity has improved with two reference labs doing TB culture and DST. There are 15 GeneXpert machines with plans to procure another 14. All the 202 diagnosed MDR-TB cases have been started on treatment. The NTP is planning to conduct a DRS and prevalence survey to assess the burden of the disease.

In Lesotho cumulatively 831 MDR-TB patients have been put on treatment. DR-TB in the country is being managed by Partners in Health (PIH). The country is planning to conduct a nation-wide DRS this year to ascertain the burden of M/XDR-TB. MDR-TB Treatment is only initiated by the national MDR-TB hospital, which uses ambulatory treatment.

5.4 Djibouti

Djibouti has closed as a TB CARE I country project, but Regional funding and country project savings are supporting a few key activities conducted by both WHO and KNCV.

A TB Infection control mission was conducted by two TB CARE I-supported consultants from May 11-17, 2013 to help the NTP establish a TB infection control program. The mission concluded that in spite of good political will in MoH the country did not have a TB-IC program. TB infection among healthcare workers indicated ongoing potential risk of TB transmission, and managerial, administrative and the personal protective controls are missing in all facilities visited. The TB-IC guidelines have been drafted and are under review before translation and onward presentation to the MoH-Djibouti.

In addition, planning took place for several activities that are planned for next quarter. The NTP and MDR-TB guidelines, supervision checklist, the national strategic plan including the Monitoring and Evaluation plan, and the protocol for the short treatment course for MDR-TB will be finalized in Quarter 4. An in-depth review mission and TB/HIV training that will take place in September.

We would like to acknowledge all the people across the world who make TB CARE I possible, our gratitude and thanks go out to all our partners and everyone in the field.

E-mail pmu@tbcare1.org
Phone +31-70-7508447
Website www.tbcare1.org
Twitter #tbcare1

TB CARE I