

Challenge TB

Year 2

Performance Monitoring Report 3

April 1 - June 30, 2016



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CHALLENGE **TB**



KNCV

TUBERCULOSIS FOUNDATION



About Challenge TB:

Challenge TB is USAID's flagship TB control program. It is implemented by a unique coalition of nine international organizations:

Led and managed by:

KNCV Tuberculosis Foundation

Coalition Partners:

American Thoracic Society (ATS)

FHI 360

Interactive Research & Development (IRD)

International Union Against Tuberculosis and Lung Disease (The Union)

Japan Anti-Tuberculosis Association (JATA)

Management Sciences for Health (MSH)

PATH

World Health Organization (WHO)

Cover photo:

Social Worker provides a food certificate as treatment adherence motivation to an MDR-TB patient in Poltava, Ukraine.. Credit: Inessa Protaschuk

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Table of Contents

Abbreviations	4
Executive Summary	5
Introduction	7
Global Fund.....	8
 Country Projects	 10
Programmatic Management of Drug-Resistant TB	11
Afghanistan.....	14
Bangladesh.....	16
Botswana	17
Burma	18
Cambodia	19
Democratic Republic of the Congo	20
Ethiopia	21
India	23
Indonesia	25
Kyrgyzstan.....	26
Malawi	27
Mozambique	28
Namibia.....	29
Nigeria.....	30
South Sudan	32
Tajikistan.....	33
Tanzania.....	34
Ukraine	35
Uzbekistan	36
Vietnam.....	36
Zimbabwe	37
 East Africa Region Project.....	 39
 Core Projects.....	 40
 New Publications	 43

Abbreviations

ACF Active Case Finding

ACSM Advocacy, communication and social mobilization

aDSM Active TB Drug-Safety Monitoring and Management

AFB Acid-fast bacilli

ART Antiretroviral Therapy

BAIS Botswana AIDS Impact Survey

BAPPEDA Planning Agency for Regional Development

BSC Biological Safety Cabinets

BUP Botswana University of Pennsylvania Partnership

CB-DOTS Community-Based DOTS

CCM Country Coordinating Mechanism

CDC Centers for Disease Control and Prevention

CDM Country Directors' Meeting

CHW Community Health Worker

CI Contact Investigation

C/DST Culture/Drug Susceptibility Testing

CPLT Provincial TB and Leprosy Coordination Departments

CSCP Community Sputum Collection Points

CTB Challenge TB

DCA Diagnostic Chain Analysis

DHIS2 District Health Information Software Version 2

DM Diabetes Mellitus

DOT Directly Observed Treatment

DOTS Directly Observed Treatment Short Course

DQA Data Quality Assessment

DR Congo Democratic Republic of the Congo

DR-TB Drug-Resistant TB

DST Drug Susceptibility Testing

ECH Empowerment Community for Health

ECSA East, Central and Southern African Health Community

ERR Electronic Recording and Reporting

EQA External Quality Assurance

FLD First Line Drug

GDF Global Drug Facility

GF The Global Fund to fight AIDS, Tuberculosis and Malaria

GLC Green Light Committee

GLI Global Laboratory Initiative

HC Health Center

HCW Health Care Worker

HF Health Facility

HIPAA Health Information, Policy and Advocacy

HVAC Heating Ventilation and Air-Conditioning

HSA Health Surveillance Assistant

IC Infection Control

IDP Internally Displaced Persons

IT Information Technology

IPAC Portuguese Institute of Accreditation

IPC Infection Prevention Committee

IMNCI Integrated Management of Newborn and Childhood Illness

IPT Isoniazid Preventive Therapy

JATA Japan Anti Tuberculosis Association

LED Light Emitting Diode

LMIS Logistic Management Information System

LoE Level of Effort

LTBI Latent TB Infection

KNCV KNCV Tuberculosis Foundation

MDR-TB Multidrug Resistant Tuberculosis

M&E Monitoring and Evaluation

MoH Ministry of Health

MSF Médecins Sans Frontières

MSH Management Sciences for Health

MTB+ Mycobacterium Tuberculosis detected (GeneXpert MTB/RIF)

NACA National AIDS Coordinating Agency

NFM New Funding Model

NGO Non-Governmental Organization

UNSE United Nations Special Envoy

URCS Ukrainian Red Cross Society

NSP National Strategic Plan

NTP National TB Program

NRL National Reference Laboratory

NTRL National TB Reference Laboratory

OR Operations Research

PCA Patient-Centered Approach

PEPFAR President's Emergency Plan for AIDS Relief

PIH Partners in Health

PLHIV People Living with HIV

PMDT Programmatic Management of Drug-Resistant Tuberculosis

PMV Patent Medicine Vendors

PMU Project Management Unit

PO Project Officer

PPM Private Public Mix

PR Principal Recipient

PV Pharmacovigilance

QICA Quarterly Interim Cohort Analysis

RDQA Routine Data Quality Assessment

RIF Rifampicin

RR-TB Rifampicin-resistant TB

SLD Second Line Drug

SLMTA Strengthening Laboratory Management Towards Accreditation

SOP Standard Operating Procedure

SR Sub-Recipient

SRL Supranational Reference Laboratory

STTA Short-Term Technical Assistance

TA Technical Assistance

TB Tuberculosis

TB-IC TB Infection Control

TB CAP Tuberculosis Control Assistance Program

ToR Terms of Reference

ToT Training of Trainers

TSR Treatment Success Rate

UCDC Ukrainian CDC

UNDP United Nations Development Program

USAID United States Agency for International Development

WHO World Health Organization

XDR-TB Extensively-Drug Resistant Tuberculosis

Xpert GeneXpert MTB/RIF

Executive Summary

Challenge TB (CTB) is the flagship global mechanism of the United States Agency for International Development (USAID) to prevent and control tuberculosis (TB). This performance monitoring report summarizes program progress, achievements and challenges during the third quarter of Year 2, April-June 2016, across the 21 country projects, the East Africa regional project, and seven approved core projects. The program's most significant achievements from the reporting period, as well as the challenges for the next quarter are highlighted below.

Main Achievements

Country Projects

- **Afghanistan** - CTB sustained the efforts to promote contact investigation in the five provinces of Kabul, Herat, Kandahar, Jalalabad and Balkh. Between April-June 2016, the households of 1,052 bacteriologically confirmed (index) TB cases were visited, and 4,410 household contacts were screened for TB symptoms; 380 persons (8.6%) were identified as presumptive TB and all were tested for acid fast bacilli in their sputum; 48 (1.1%) were diagnosed with bacteriologically confirmed TB (sputum-smear positive). The prevalence of sputum-smear positive TB among these household contacts is 1,088 per 100,000 household members, which is three times higher than the WHO estimated prevalence for all forms of TB (340 per 100,000 population, Global TB Report 2015) for the general population.
- **Botswana** - The national rollout of GxAlert gained momentum during this reporting period. Following national level trainings on GxAlert technology use and system administration, central server set-up and the installation of GxAlert at 29 Xpert sites was completed. The National TB Program (NTP) and the National Reference laboratory (NRL) started working together as co-system administrators for the GxAlert application.
- **Cambodia** - The Cambodia Anti-TB Association, with the financial and technical support of CTB, implemented house-to-house TB screening in three operational districts (Kampong Speu, Sampeou Meas and Bakhan). From April-June 2016, among 14,499 individuals were screened using a symptom questionnaire, and 9,067 (62%) presumptive TB patients were identified; 8,943 (99%) were examined by chest X-ray; 2,722 (30%) patients had abnormal results, all of which had sputum samples sent for Xpert testing; 232 (9%) patients were bacteriologically confirmed including two patients with Rifampicin-resistant TB (RR-TB); and 408 (15%) patients were diagnosed clinically. This would reflect a prevalence of active TB of about 4,414 per 100,000 individuals assessed through house-to-house screening, which is six times higher than the WHO estimated prevalence for all forms of TB (668 per 100,000 population, Global TB Report 2015).
- **Democratic Republic of the Congo (DR Congo)** - Childhood TB prevention, diagnosis, treatment and care was a key focus area during the reporting period, following the development of the global action plan for childhood TB care. Building on the work started during USAID/TB CARE I support, CTB has made significant contributions to the operationalization of the national roadmap. The NTP in collaboration with the child health program of the MoH incorporated key intervention areas in the Integrated Management of Newborn and Childhood Illness (IMNCI) manual.
- **Ethiopia** - A national quantification exercise for anti-TB drugs using the QuanTB tool was conducted, which resulted in the cancelation of two shipments of second line drugs (SLDs) due to an expected overstock, placing an emergency order for Isoniazid for both adult and pediatric formulations as well as the cancelation of ethambutol-100mg due to overstock.
- **India** - CTB is supporting a project offering upfront access to Xpert testing for the diagnosis of pediatric TB with FIND as the implementing partner. Following the success of the initial project in four cities (Delhi, Kolkata, Hyderabad and Chennai) the project has now been expanded to an additional three cities (Vizag, Surat and Nagpur). A 24% increase in the enrollment of children with TB symptoms from the previous quarter was noted with 8,702 presumptive pediatric patients tested between April-June 2016 compared to 7,039 between Jan-Mar 2016. Of the total children presumptive for TB, 665 (8%) were found MTB positive, 55 (8%) of which were found to have RR-TB.
- **Indonesia** - CTB provided technical assistance (TA) to two regional laboratories, BBLK Jakarta (DKI Jakarta) and Adam Malik Hospital (North Sumatera). As a result, both labs have been certified for DST on SLDs, bringing the total number of certified laboratories for SLD/DST in Indonesia to seven, thus achieving the 2016 national target.
- **Mozambique** - CB-DOTS was rolled-out in all four CTB provinces. Through community activities, 6,221 presumptive cases were referred to health facilities; out of which 5,228 (84%) reached health facilities for TB investigations; 847 (16%) were diagnosed with TB (all forms), and 501 (59%) were bacteriologically confirmed. All diagnosed cases were initiated on treatment.
- **Nigeria** - A total of 149 DR-TB patients were enrolled on treatment during this quarter in the 12 CTB-supported states, including 124 (83%) patients who were enrolled on treatment at the community level. In addition, CTB provided economic support to 476 DR-TB patients across the 12 states and 13 patients received hearing aids during the quarter.

- **Tanzania** - CTB continued to consolidate previous achievements in TB/HIV by training 30 district TB and TB/HIV coordinators on the national TB/HIV collaborative services package. Out of 6,356 TB cases (all forms) notified this quarter, 6,177 (99.5%) TB patients were counseled and tested for HIV and received their results - an improvement from 98% last quarter. The TB/HIV co-infection rate remained at 33% (2,108), among whom 95% (1,997) were initiated on ART compared to 92% in the previous quarter; 98% (2,071) were started on co-trimoxazole preventive therapy (CPT).
- **Ukraine** - CTB provided psychosocial support to 253 M/XDR-TB patients during the ambulatory phase of treatment in Poltavka and Mykolayivska oblasts; the influence of this effort on improving the treatment outcomes among these patients will be assessed in the coming quarters.
- **Zimbabwe** - The rollout of the District Health Information Software Version 2 (DHIS2) is progressing steadily following the training sessions conducted in the second quarter. The districts have started entering health facility data backdating to January 2015. For the period of Jan-Mar 2016, 1,395/1,740 (80%) health facilities had entered their TB data from their quarterly reports into the database. The reporting rate is expected to significantly improve following the procurement of 75 laptops for TB Coordinators to assist in data entry. The computers will be distributed in the fourth quarter of CTB.

Core Projects

- **Bedaquiline (BDQ)** - Between Jan-Jun 2016, 155 patients were started on BDQ (six patients were started on Delamanid, DLM) compared with a total of 91 patients started on BDQ (no patients were started on DLM) between 2014 and 2015 thanks to different donor/project support. CTB organized a workshop for CTB country teams on the introduction of new drugs and regimens (ND&Rs) in Jun 2016 prior to the Country Directors' meeting in The Hague. The workshop aimed to strengthen capacity within global, regional and country level CTB offices to support countries' rapid introduction of new drugs and regimens (ND&Rs) for the DR-TB, with a focus on the 9-12 month shorter regimens and BDQ containing regimens. With representatives from 14 CTB country projects (in-country PMDT/Technical Officers and/or Country Directors), USAID, KNCV, ATS, MSH, The Union and WHO, the workshop also allowed for immediate work planning for current Year 2 implementation and the CTB Year 3 planning cycle.
- **Stigma** - In May 2016, two meetings on TB Stigma were held in The Hague. The meetings galvanized academic, policy, and practitioner support for improved measurement and intervention on TB stigma. The preliminary results of six new studies on TB stigma measurement methods were presented, which represent a significant advancement in the TB measurement field—answering some basic questions that set the stage for correct measurement tools and methods in future.
- **UN Special Envoy (UNSE) for Tuberculosis** - The UNSE played a key role in the UN High Level Meeting on HIV/AIDS in June, which resulted in strong language on TB/HIV co-infection in the *Political Declaration on HIV and AIDS*. Declaration language was very strong for TB - calling for a 75% reduction in TB/HIV co-infection and an additional statement supporting accelerated funding and targeting of services for key populations.
- **TB prevention** - USAID approved KNCV's sub-agreement with the Aurum Institute and the Witwatersrand University Institutional Review Board (South Africa) approved the study protocol. The protocol was submitted to the Medicines Control Council for regulatory approval and to London School of Hygiene & Tropical Medicine for ethics approval. The data safety monitoring board was established and the start of enrollment is being prepared through development of standard operating procedures (SOPs) and case report forms. Clinical trial sites in South Africa, Mozambique and Ethiopia were also selected.

Main Challenges

- Several countries are experiencing high pipelines due to delayed implementation and savings from the completed activities. The project management unit (PMU) is working with country teams to develop action plans to reduce the pipelines in order to avoid lower funding next year.
- As mentioned in previous reports, CTB countries continue to face challenges in closing the gap between diagnosis and treatment initiation as well as in producing and using quality PMDT data in a timely fashion. These challenges will be further analyzed in the Year 2 Annual Report once official 2015 data are available for all countries. This problem is being addressed by the project in various CTB countries, and will be even more important for CTB to resolve as we are implementing and scaling-up new drugs and shorter regimens for MDR-TB.
- Work planning for Year 3 is a major priority for the coming quarter and the PMU is working closely with all project teams to ensure timely submission to USAID. CTB is putting an emphasis on quality, results-oriented work plans by focusing on major achievements that are expected not only by the end of Year 3, but also by the end of the project.

Introduction

Challenge TB is USAID's flagship global mechanism for implementing the United States Government (USG) TB strategy as well as contributing to TB/HIV activities under the U.S. President's Emergency Plan for AIDS Relief (PEPFAR). Launched on October 1, 2014, this five-year cooperative agreement (2014-2019) builds and expands upon previous USAID global programs, namely TB CARE I (2010-2015), the Tuberculosis Control Assistance Program (TB CAP, 2005-2010) and Tuberculosis Control Technical Assistance (TBCTA, 2000-2005). KNCV Tuberculosis Foundation (KNCV), which also led the aforementioned programs, leads a unique and experienced coalition of nine partners implementing CTB. The coalition partners are: American Thoracic Society (ATS), FHI 360, Interactive Research and Development (IRD), International Union Against Tuberculosis and Lung Disease (The Union), Japan Anti-Tuberculosis Association (JATA), Management Sciences for Health (MSH), PATH and World Health Organization (WHO).

Working closely with Ministries of Health, USAID, Global Fund, the STOP TB Partnership and other key stakeholders at a global, regional, national and community level, Challenge TB contributes to the WHO End TB Strategy targets:

Vision: A world free of TB

Goal: To end the global TB epidemic

By 2025: A 75% reduction in TB deaths (compared with 2015) and less than 50 cases per 100,000 population.

Aligned with the USG strategy to prevent and control TB, Challenge TB has three objectives, each with several focus areas for interventions:

Objective 1: Improved access to high-quality patient-centered TB, DR-TB & TB/HIV services by:

- Improving the enabling environment
- Ensuring a comprehensive, high quality diagnostic network
- Strengthening patient-centered care and treatment

Objective 2: Prevent transmission and disease progression by:

- Targeted screening for active TB
- Implementing infection control measures
- Managing latent TB infection

Objective 3: Strengthen TB service delivery platforms by:

- Enhancing political commitment and leadership
- Strengthening drug and commodity management systems
- Ensuring quality data, surveillance and monitoring & evaluation
- Supporting human resource development
- Building comprehensive partnerships and informed community engagement.

CTB implements projects at country, regional and international/global level with the majority of the program's work being done through country-specific projects. As of June 30, 2016, 21 countries were implementing CTB. At the regional level, CTB continued implementation of the East African Region project (more information available on page 39), while CTB also continued implementation of seven core projects this quarter (see page 40 for more details).

A key strategic objective of CTB is to support timely and successful implementation of Global Fund (GF) grants within the 21 CTB countries. The approach taken to support GF grant implementation at the country level varies depending on need, but a common theme consisting of collaboration, information sharing, leveraging of resources and technical support is applied across the board.

During this past quarter, a mapping of all CTB countries was a priority activity. This mapping exercise created a baseline of the current GF grants in CTB countries and the implementation status for each grant. An excel-based matrix designed in collaboration with USAID was used to capture data and track several variables including the grant start and end dates, status of application processes like epi assessments, national strategic plans (NSPs) and program reviews. The matrix used to capture data during the mapping exercise will also serve as the tool to continue monitoring GF implementation status in CTB countries and support STTA coordination for the upcoming round of GF applications starting in 2017.

Preliminary findings from the mapping exercise show that there are 33 signed grants in 21 CTB countries, with an additional two that are in grant making phase. A handful of grants were early applicants and able to start up in late 2013 or in 2014 (Afghanistan, Cambodia, Burma, Ukraine and Zimbabwe). Two grants were recently started up in March 2016 and will have end dates in early 2018 (Botswana and Tajikistan). However, most of the 33 grants will end by December 2017 having started up between July 2015 and February 2016.

While the performance ratings of GF grants in CTB countries range from A1 to B1 (A1-14%, A2-12%, B1-17%), which is good, most current grants (57%) have not yet been rated. Many grants have experienced start-up challenges due to delayed disbursement of funds, long grant negotiations, setting up new teams to manage grants at principle recipients (PRs) and delayed approvals of first annual work plans. Most grants are now implementing activities and the pace is starting to pick-up. However, one cross-cutting challenge is the slow movement of funds from the PR to sub-recipients and down to the local level.

In general, coordination between CTB and the GF at the country level is good, but there is some room for improvement. A challenge across several countries is coordination during work plan development when GF operational plans are not openly shared. As a TA based project, CTB is in a position to offer technical expertise in support of GF activities. One of the ways in which CTB can support GF implementation is to identify bottlenecks or other disruptions and help with solutions, like impending drug or commodity stockouts. While CTB has been able to step in and help in several situations there is still need for country directors to become more attuned to issues and to take pro-active steps.

The mapping exercise also demonstrated the important relationship between CTB and GF. In general, GF is meant to cover the “hardware” (recurrent and large funding investments) of NTPs -i.e., TB drugs, lab equipment and supplies and trainings and CTB covers the “software” - i.e., TA. Thus, each country project has clear roles in how it supports NTPs and how it can best complement GF support. The GF and CTB are the major partners for NTPs in most countries and work together for successful implementation towards results and ending TB.

The next page contains a summary of highlights from five countries illustrating CTB support for GF related activities.

BURMA

CTB played a pivotal role in supporting the development of the NSP 2016-2020 and Global Fund Concept Note 2017-2020 application. Both of these tasks were the NTP's top priorities in the past quarters. In addition to providing an external consultant to work on both the NSP and Concept Note in close collaboration with WHO and NTP, CTB country staff also worked extensively on revisions of the NSP narrative and realigning the budgets of the NSP and GF Concept Note. The NSP was endorsed by the NTP and is being printing for dissemination. The Concept note was submitted on June 17.

Cost savings were identified within the current GF grant managed by Save the Children (GF-PR). In consultation with NTP, it was agreed that TB infection control (TB-IC) improvements were one of the priority areas to target for reprogramming the savings. CTB was requested to advise on TB-IC measures that could be prioritized and CTB linked Save the Children with the appropriate national consultants to support them in conducting facility assessments.

INDONESIA

In April a high level combined Stop TB Partnership/GF mission to Indonesia voiced their concern on the under-spending of the GF TB grant and under-performance on GF targets, especially on TB case notification, MDR-TB and TB/HIV. CTB took the initiative to facilitate biweekly meetings between the GF country team and the NTP, with participation of the Country Coordinating Mechanism (CCM) vice chair, WHO, KNCV, and others as needed and to support the NTP in implementing the action points agreed during these meetings. This close coordination has already resulted in an accelerated MDR-TB response in the country.

NIGERIA

CTB provided support to address a few challenges experienced during this last quarter including occasional stockout of anti-TB drugs and Xpert cartridges in few states and the delayed arrival and clearance of first line anti-TB drugs. Through active support of CTB to address these issues, there was a mapping and redistribution of Xpert cartridges and first-line anti-TB drugs between states. CTB also spearheaded a planning meeting to develop a draft road map for the introduction of new regimens for DR-TB. A major outcome of the meeting is that CTB will support the introduction of new regimens with external TA.

TAJIKISTAN

CTB Tajikistan collaborates closely with the GF grant PRs, as well as GF Geneva and USAID to follow up progress in procurement of anti-TB drugs including new drugs (Bedaquiline, BDQ) through the current GF grant. In April, CTB and the USAID Mission jointly facilitated several thematic working group meetings to initiate the process of drug quantification and ordering involving the NTP, both PRs, partner organizations and projects (Médecins Sans Frontières (MSF), Caritas Luxemburg and USAID TB Control Program). CTB provided TA including the quantification of expected numbers of M/XDR-TB patients for 2017 and calculation of drug needs (second line, repurposed and BDQ), which in turn impacted drug procurement and timeframes.

UKRAINE

CTB project team participated in a number of meetings with the MoH, Ukrainian CDC (UCDC), GF consultants, and other stakeholders on the development of the transition plan for governmental funding of activities currently funded by GF to ensure sustainability of the provided services. Based on the results of the working group discussions, the "Strategy on the sustainable response to TB, MDR-TB and HIV/AIDS epidemic, and implementation work plan approval" was developed and endorsed by the Cabinet of Ministers. The plan contains a risk assessment of the transition process, strategic prioritization approach, progressive transition plan, and other documents. The strategy recognized the obvious need for Ukraine to receive an additional GF grant to ensure sustainability and avoid gaps in treatment and diagnostic quality. At the regional level, CTB monitored the support provided to drug-sensitive TB patients by regional People Living with HIV (PLHIV) Network organizations supported by the GF grant funds. CTB noted gaps in the quality and coverage of services and shared this concern with the UCDC for quality improvement actions. The situation was discussed by CTB staff with the UCDC and local governments as well as with PLHIV Network grantees at the oblast level to increase the role of PHC providers in DOT insurance.

Country Projects

As of June 30th, 2016, 21 countries were implementing CTB (see map). The table below summarizes the technical reach of the approved Year 2 CTB country work plans.



CTB sub-objectives covered in Year 2 country work plans

Technical Areas	Challenge TB Countries																					# Countries working in technical area
	AF	BA	BO	BU	CA	DRC	ET	India	Indo	KR	MA	MO	NA	NI	SS	TJ	TN	UKR	UZB	VT	ZM	
1. Enabling Environment	X	X		X	X		X		X		X	X	X	X	X		X	X			X	14
2. Comprehensive, high quality diagnostic network		X	X	X	X	X	X	X	X		X	X	X	X	X		X		X	X	X	17
3. Patient-centered care & treatment	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	20
4. Targeted screening for active TB		X	X	X	X		X				X	X	X	X			X				X	11
5. Infection Control	X	X		X	X	X	X		X		X	X	X		X		X	X		X		14
6. Management of latent TB infection					X	X	X		X		X	X	X		X		X			X		10
7. Political commitment & leadership	X	X		X	X	X	X	X	X			X	X	X	X		X	X		X	X	16
8. Comprehensive partnerships and informed community involvement			X	X	X	X	X	X	X	X	X		X		X		X			X	X	13
9. Drug and commodity management systems		X	X	X		X	X		X				X			X	X		X			10
10. Quality data, surveillance and M&E	X	X	X	X	X	X	X		X		X	X	X	X	X		X			X	X	16
11. Human resource development		X		X	X	X	X	X	X		X	X	X		X		X	X			X	14

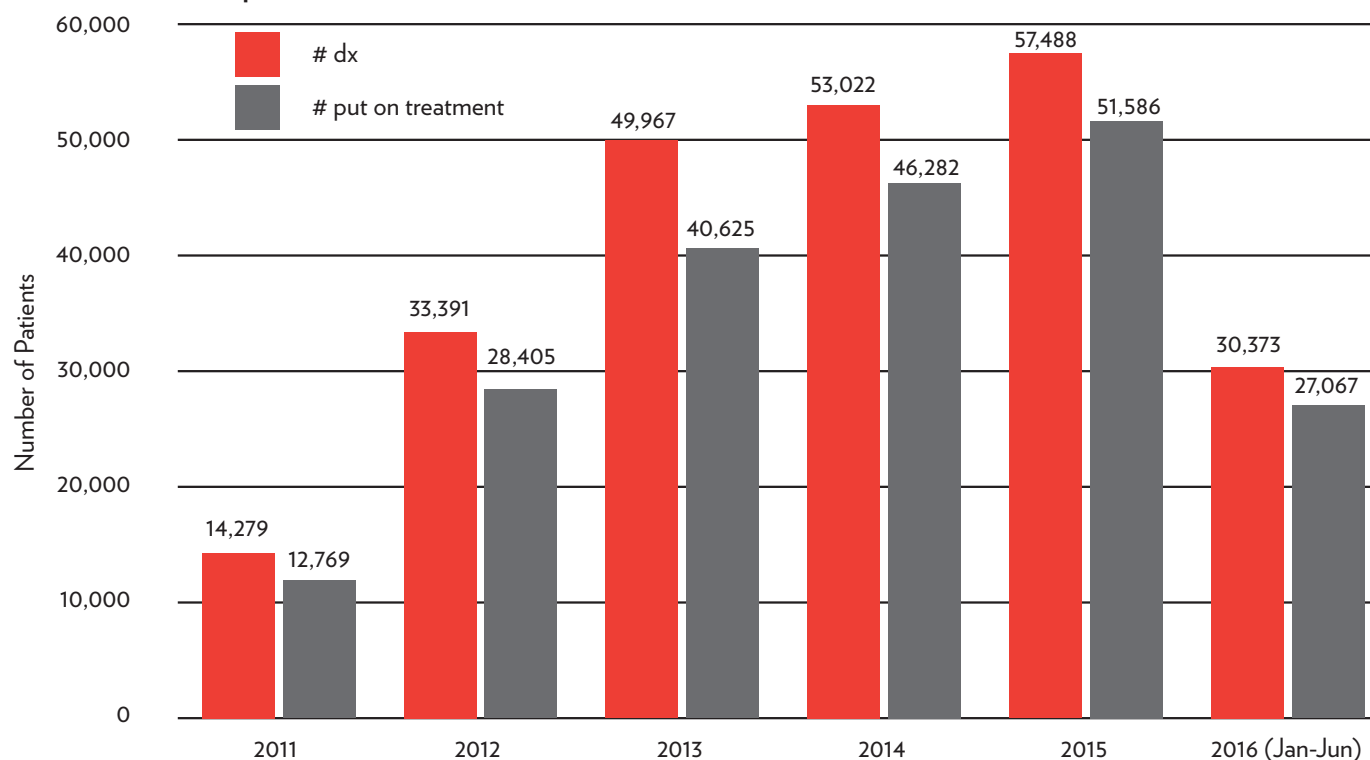
Programmatic Management of Drug-Resistant TB

CTB is supporting the implementation of PMDT and the program is monitoring MDR-TB diagnosis and treatment data quarterly to track progress in PMDT scale-up and to inform project activities at country and global levels. CTB relies on data reported officially to WHO (before 2015), and also gathers data directly from NTPs for the most recent quarters in each country. Table 6 summarizes the number of MDR-TB (including Rifampicin-resistant TB, RR-TB) patients diagnosed and the number of patients (unconfirmed and confirmed) started on treatment from 2011 through 2016. The totals per year are summarized in Figure 3 to capture the overall trend across CTB countries.

Diagnosis of confirmed RR-TB and MDR-TB (Xpert and C/DST) as well as treatment initiation for unconfirmed and confirmed MDR-TB, 2011-2016 in 21 CTB countries
(2010-2014: WHO Global TB Report 2015; 2015 and Jan-Mar 2016 data reported from the NTP via CTB; data that are not yet available have been extrapolated based on available data and appear in red)

Countries	WHO Data								NTP data via CTB							
	2011		2012		2013		2014		2015		Jan-Mar 2016		Apr-Jun 2016		Jan-Jun 2016	
	#dx	# put on trt	#dx	# put on trt	#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	22	22	38	38	49	48	88	88	80	79	20	20	22	22	42	42
Bangladesh	612	390	701	505	807	684	994	945	896	880	242	208	242	208	484	416
Botswana	46	71	52	67	59	59	41	73	82	82	20	20	20	20	40	40
Burma	690	163	778	442	1,984	1,537	3,495	1,537	2,793	2,207	755	501	755	701	1,510	1,002
Cambodia	56	83	117	110	131	121	110	110	77	75	29	29	28	28	58	57
DRC	88	138	133	269	261	359	442	436	476	429	99	98	120	84	219	182
Ethiopia	216	199	294	289	558	413	503	557	503	597	279	230	279	230	558	460
India	4,221	3,384	17,253	14,059	23,289	20,763	25,748	24,073	28,876	26,966	7,219	6,742	7,219	6,742	14,438	13,483
Indonesia	466	255	818	432	1,074	819	1,812	1,284	2,167	1,576	663	413	651	358	1,314	771
Kyrgyzstan	679	804	958	958	1,590	1,160	1,267	1,157	1,158	1,200	350	350	371	371	721	721
Malawi	26	15	27	19	28	19	106	64	106	65	27	16	27	16	53	33
Mozambique	184	146	283	215	359	313	544	482	644	644	148	148	148	148	296	296
Namibia	194	194	216	216	225	218	350	327	284	270	79	71	79	76	158	147
Nigeria	95	39	107	225	669	432	798	423	1,279	656	349	241	349	241	698	482
South Sudan	7	0	3	0	1	0	6	-	20	-	1	0	1	0	2	-
Tajikistan	598	380	780	536	1,065	666	902	804	716	638	179	160	179	160	358	319
Tanzania	36	32	83	44	95	95	516	143	272	124	49	40	45	40	94	80
Ukraine	4,530	4,957	7,615	7,672	10,585	9,000	7,735	8,201	9,078	8,869	2,481	2,453	2,492	2,497	4,974	4,932
Uzbekistan	794	855	2,212	1,419	5,751	2,647	4,955	3,665	4,955	3,665	1,239	916	4,955	3,665	2,478	1,833
Vietnam	601	578	774	713	994	957	2,198	1,532	2,558	2,131	818	572	674	868	1,492	1,440
Zimbabwe	118	64	149	105	393	315	412	381	468	433	193	166	193	166	386	332
Total	14,279	12,769	33,391	28,405	49,967	40,625	53,022	46,282	57,488	51,586	15,238	13,394	15,134	13,674	30,373	27,067

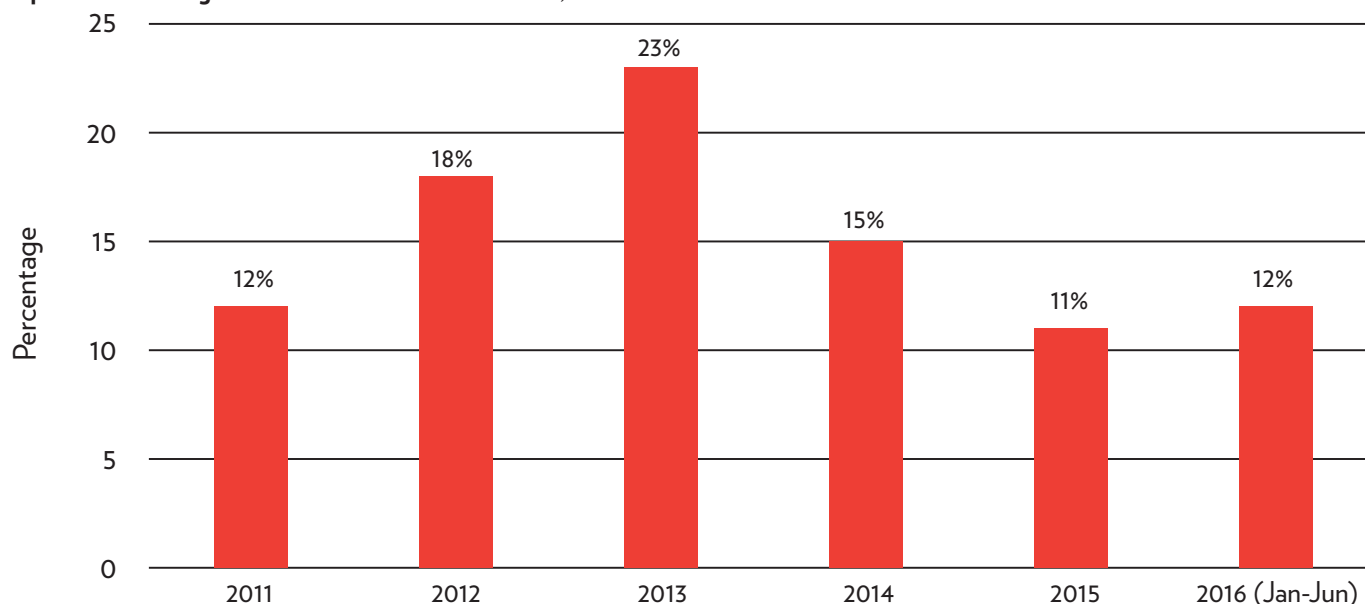
Number of confirmed RR-TB and MDR-TB patients (Xpert and C/DST) diagnosed, and number of unconfirmed and confirmed MDR-TB patients started on treatment, 2011-2016 in 20 CTB countries



The rapid increase in diagnosis and treatment initiation from 2011 to 2015 (a more than fourfold increase) is notable. The data for 2015 need to be interpreted with some caution as the data are currently reported by NTPs via CTB and may be different when reported to WHO for the Global TB Report 2016. For three countries the data is based on projections of (equal level) 2014. These initial 2015 data (updated from what was reported in previous quarter) project an 8% and 11% increase in diagnosis and treatment initiation from 2014 (CTB baseline) to 2015, respectively. Again, based on the updated 2015 data, more pronounced increases over this period are noted in Botswana (100% in #dx and 12% in #trt), Nigeria (60% and 55%, respectively), Vietnam (16% and 39%, respectively), Mozambique (18% and 34%, respectively), Indonesia (20% and 23%, respectively), Zimbabwe (14% and 14%, respectively), and Ukraine (17% and 8%, respectively).

The approximate gap between diagnosis and treatment initiation has decreased since 2013 and remains 12% based on Jan-Jun 2016 data (See below).

Gap between diagnosis and treatment initiation, 2011-2016* in 21 CTB countries*



*Data from 12 countries are based on projections of (equal level) 2015 or incomplete Jan-Jun 2016 data.

As mentioned in previous reports, CTB countries continue to face challenges in closing the gap between diagnosis and treatment initiation as well as in producing and using quality PMDT data in a timely fashion. These challenges will be further analyzed in the Year 2 Annual Report once official 2015 data are available for all countries. This problem is being addressed by the project in various CTB countries, and will be even more important for CTB to resolve as we are implementing and scaling-up new drugs and shorter regimens for MDR-TB.

New drugs and novel regimens

Since 2014, eligible patients¹ have been started on BDQ in 13 countries, and on DLM in four countries (see below). In total, 155 patients were started on BDQ (six patients were started on DLM between Jan-Jun 2016 compared with a total of 91 patients started on BDQ (no patients were started on DLM) between 2014 and 2015 thanks to different donor/project support. In addition, patient enrollment on BDQ treatment is anticipated in an additional four countries with CTB support (Ukraine, Tajikistan, Kyrgyzstan and Kazakhstan) over the next quarter; therefore additional increases in the number of patients started on BDQ treatment are expected by the end of this reporting year (for more information see page 40).

Number of eligible patients started on BDQ or DLM (national data), 2014-2016 in 13 CTB countries

CTB Country	2014		2015		Jan-Mar 2016		Apr-Jun 2016		To date in 2016	
	# put on BDQ	# put on DLM	# put on BDQ	# put on DLM	# put on BDQ	# put on DLM	# put on BDQ	# put on DLM	# put on BDQ	# put on DLM
Bangladesh							5		5	
Botswana	2		2							
Burma					1	1	5		6	1
DRC			2							
Ethiopia							1	1	1	1
India							2		2	
Indonesia			16		8		12		20	
Malawi					3	3			3	3
Namibia							7	1	7	1
Tajikistan			5		3		5		8	
Tanzania			1		1				1	
Uzbekistan			60		60				60	
Vietnam			3		20		22		42	
Total	2		89		96	4	59	2	155	6

Most significant achievements

The progress and achievements from April through June 2016 for the 21 CTB country projects that were active during the quarter are summarized on the following pages.

1. Eligibility varies by country but should follow WHO/NTP criteria, which usually entails pre-XDR, XDR-TB and MDR-TB patients with adverse drug reactions and/or poor tolerance to standard second line drugs.

Afghanistan

CTB-Afghanistan, led by MSH and with KNCV as a collaborating partner, aims to assist the NTP to reach its strategic objective of increasing TB case notifications by at least 6% annually through provision of quality TB services to all communities. The project works in 15 of the country's 34 provinces.

Digital X-ray installation - CTB committed to providing increased access to TB services for vulnerable populations, including children. Three digital X-ray machines were purchased, delivered, and installed in three children's hospitals in the cities of Mazar e Sharif, Herat, and Kandahar. In addition to the digital X-ray machines, the equipment provided to the provinces included a scanner, a printer, two sets of adult-sized and child-sized cassettes, and a set of uninterruptible power sources. The X-ray rooms were set up in accordance with current standards and to reduce the risk of exposure to X-rays for both clients and care providers. These facilities will increase the access of children to TB services; namely, it is expected that at least 10,000 children will benefit from quality X-ray services.

Urban DOTS implementation in densely populated areas - From April-June 2016, CTB maintained implementation of DOTS in the densely populated areas of the five cities of Kabul, Mazar, Herat, Jalalabad and Kandahar. CTB helped the NTP expand DOTS to 10 public and private health facilities, and 166 Urban DOTS health facilities were engaged by the end of June 2016 (92 in Kabul and 74 in the other four Urban DOTS cities). CTB trained 159 health care staff members such as nurses, doctors, and laboratory technicians to follow SOPs for TB case finding and treatment, including laboratory assessment and microscope repair and maintenance. In total 150 supervisory visits were conducted and 625 individuals attended the awareness events in those five cities. As a result, the health care workers (HCWs) in the five urban cities identified 13,408 presumptive patients who were tested for TB; among them, 1,052 (8%) were diagnosed as bacteriologically confirmed TB cases, and 3,347 (24%) were diagnosed with all forms of TB between April and June 2016. Out of these 3,347 cases, 488 (15%) and 57 (2%) cases were identified in private health facilities and prisons, respectively.

DOTS implemented in remote and hard-to-reach areas - CTB continued assisting the NTP to implement community-based DOTS (CB-DOTS) in 14 provinces through sub-contracts with NGOs delivering primary health care services to the local population. This quarter, CB-DOTS was implemented in 532 HFs across 173 districts in 14 provinces; the presumptive TB cases referred by the community increased from 8,977 in the first quarter 2016 to 9,550 in the second quarter in 2016, a 6% increase. The number of bacteriologically confirmed TB cases referred by the community increased from 456 in the first quarter of 2016 to 580 in the second (27% increase); similarly, the number of TB patients under treatment by CHWs increased from 644 in the first quarter of 2016 to 850 in the second (32% increase).

Contact investigation - CTB sustained efforts to promote contact investigation in the five provinces of Kabul, Herat, Kandahar, Jalalabad and Balkh. Between April-June 2016, the households of 1,052 bacteriologically confirmed (index) TB cases were visited, and 4,410 household contacts were screened for TB symptoms by interview; 380 persons (9%) were identified as presumptive TB and all were tested for acid fast bacilli in their sputum; Of those tested, 48 (1%) were diagnosed with bacteriologically confirmed TB (sputum-smear positive). The prevalence of sputum-smear positive TB among these household contacts is 1,088 per 100,000 household members, which is three times higher than the WHO estimated prevalence for all forms of TB (340 per 100,000 population, Global TB Report 2015) for the general population.

Furthermore, in all 15 provinces, among the 13,594 household contacts screened for TB, 1,928 (14%) were identified with presumptive pulmonary TB and were tested. This in turn led to identification of 95 (0.7%) bacteriologically confirmed TB cases - the yield of TB among household contacts in all 15 provinces translated to 1,300 in 100,000 household members. In 15 provinces, 2,990 children under the age of 5 were in contact with index TB cases, and 2,719 (91%) of those children were put on Isoniazid preventive therapy (IPT); and 2,583 children (95%) completed their IPT.

TB Infection Control (TB-IC) implementation - During April-June 2016, 30 health facilities were assessed for TB-IC to ensure that health facility design and use are appropriate to reduce crowding, maximize natural ventilation, and organize patient flow to minimize exposure to infectious patients. To achieve this goal, the redesign plans of the health facilities that were assessed are being implemented. In addition, 30 TB-IC committees have been established to organize, implement, and monitor TB-IC activities. Furthermore, the NTP helped to conduct on-the-job training for 150 health care staff from Ghazni, Paktia, Khost, Kabul and Badakhshan to help frontline staff members to comply with and improve upon established TB-IC indicators for monitoring important standards of care such as: (1) Time from cough detection to sputum collection; (2) Time from sputum collection to the lab; (3) Time from the lab to the result; (4) Time from the result to notification; (5) Time from notification to treatment; (6) Time from admission to DST result; and (7) Time to starting on effective treatment.

M&E, Surveillance, and Research - The TB surveillance system was further developed, and the electronic reporting system enhanced. During the quarter, 35 staff members - including NGO health management information system officers, provincial health officers, and provincial TB coordinators were trained on the use of the TB database and data-cleaning techniques. As a result, the data from 2014 to 2016 was cleaned, and TB information system submissions reached 93%; 90% (661/735) of health facilities reports reached to the NTP/MoH within the deadline during the first quarter of 2016.

CTB team helped the NTP to develop and submit 21 abstracts for the upcoming 47th World Conference on TB and Lung Health to be held in Liverpool, UK; 12 abstracts were accepted (57% acceptance rate) - four oral presentations, one e-poster, and seven poster presentations.



Bangladesh

CTB-Bangladesh is being led by MSH in close collaboration with KNCV. CTB is supporting the NSP 2020 targets: (1) Increase annual case detection of all forms of TB to 230,000 (from baseline of 184,507 in 2013); (2) Ensure universal access to DST; (3) Treat 100% of detected MDR-TB cases and achieve a treatment success rate of at least 75% in detected MDR-TB cases; and (4) Decrease TB mortality from 51/100,000 to 40/100,000.

Public-Private Mix (PPM) strategic plan and guidelines developed - CTB, with support from an external consultant agency, supported the NTP with the development of a new PPM strategic plan involving all relevant stakeholders. The developed strategic plan is a 4-year framework aligned with the NSP 2016-2020. The goal of the PPM strategic plan is to strengthen and expand the engagement of private sector providers, selected public institutions, NGOs, corporate sector, and professional associations and bodies to reduce the 47% gap in case detection, sustain treatment success of 90 percent, increase access to MDR-TB diagnosis, and contribute to the reduction of MDR-TB burden. Alongside the development of the PPM strategic plan and with active participation of CTB's PPM advisor, WHO developed and finalized a second edition of "Guidelines on Public-Private Mix for Tuberculosis Control", which is now endorsed by the NTP.

Engagement of industry managers and laborers in TB initiative - CTB, in collaboration with the NTP, started a TB initiative among industry workers to ensure TB patient rights, based on Bangladeshi labor law. The initiative addresses the late reporting of TB patients working in industries due to the fear of losing their jobs. The initiative is good for both employers and employees. Employers are sensitized to recognize/find/treat TB early, and therefore keep a stable healthy work force and employees diagnosed with TB avoid high costs. CTB sensitized managers/supervisors from 77 factories on the right of workers with TB to take 14 working days sick leave; and for patients to opt for factory based DOTS provided by the factory supervisor. This TB in industries initiative will be further expanded to other cities in Year 3.

NTP Laboratory staff working safely - Biological Safety Cabinets (BSCs) at many NTP laboratories have not been routinely maintained or certified in the program due to the absence of a qualified service providing agency at country or regional level. CTB contracted a South African company (Air Filter Maintenance Services) to certify the BSCs and Heating Ventilation and Air-Conditioning (HVAC) system at these laboratories in May 2016. Now the ten BSCs (seven at the NRL in Dhaka, two at the regional TB reference laboratory in Rajshahi, and one at Netrokona hospital) and one HVAC system at the NRL in Dhaka are certified and fully operational.

Childhood TB detection, contact investigation (CI) and IPT - CTB-Bangladesh has focused their attention on improving the detection of TB among children through capacity building of public, private and NGO clinical staff at district and sub-district levels. This quarter CTB conducted a 4-day training in Sylhet district covering most public and private doctors (186) and through 165 training sessions in the sub-districts, 4,200 HCWs were trained on how to recognize and refer childhood TB cases, properly implement CI and IPT. As a result, the number of children identified with presumed TB through contact investigation has increased from 1,031 (baseline from Jul-Sep 2015) to 12,681 (Apr-Jun 2016) in CTB targeted areas; 1,559 children under 5 who were contacts and not suffering from active TB started IPT this quarter.



DR-TB Patient living with her family and receiving community based treatment in Keraniganj district, Dhaka, Bangladesh (Photo: Naoshin Afroz)

CTB-Botswana led by KNCV, aims to assist the NTP in strengthening laboratory services and planning for novel intervention strategies by providing regular and routine support through long-term TA both at the NTP and the NRL.

National rollout of GxAlert - The national rollout of GxAlert gained momentum during this reporting period. A one-day national level training was conducted focusing on GxAlert technology, installation, system administration, use and application, etc. The training was facilitated by consultants from Global Connectivity; 17 participants from the MoH (IT, M&E departments), NTP, National TB Reference Laboratory (NTRL), and other departments attended the training. Following the training, the MoH-led team completed installation of a central server as well as GxAlert at 29 GeneXpert sites (29 out of total 34 sites). The NTP and NTRL started working together as co-system administrators for the GxAlert application. Following the national training, a half-day workshop was conducted with key stakeholders on the Data Collection Plan and Exploration of an MoH Data Use Agreement. Representatives of different in-country stakeholders (MOH, NTP, NTRL, KNCV, CDC, WHO and the Botswana University of Pennsylvania Partnership (BUP)) participated in the workshop. The workshop was instrumental to set the key data elements that GxAlert will be collecting. Five key additional variables were agreed by the group for collection via GxAlert (patient category, age, HIV Status, specimen collection date and specimen type). These variables are in addition to the standard data set (patient ID, cartridge usage and stock status, diagnostic results, error rate and type, non-functionality of the instrument including module status) captured by the GeneXpert instrument. The workshop covered discussions around data access by defining a Data Use Agreement.

The NRL renovation - The NTRL has been facing challenges with the provision of c/DST; namely, the TB containment facility has not been functional for almost two years causing problems in the provision of c/DST services in the country. With TA from CTB, the MOH has contracted the services from Air Filter Maintenance Services, a South Africa based company to install the new ventilation system.

The updated Xpert algorithm - The Xpert MTB/RIF test has been adopted as an initial TB diagnostic test for all patients with presumptive TB since the beginning of 2016 and the algorithm was updated during this quarter. The revised algorithm has been incorporated into the MoH's TB/HIV case management training course. A total of 25 HCWs were trained on the updated Xpert algorithm during the quarter.

Integration of National TB & HIV surveys - The next Botswana AIDS Impact Survey (BAIS) is scheduled for 2017, a similar timeframe as the TB prevalence survey. The Botswana NTP and the National AIDS Coordinating Agency (NACA) have agreed to explore integration of the national TB prevalence survey with the BAIS. A one-day, CTB-facilitated meeting on the proposed integration of TB & BAIS was held during this quarter involving key stakeholders (NACA, Statistics Botswana, NTP, USAID, CDC, WHO, GF, BUP and CTB). After exploring the opportunities and challenges of combining these two surveys, the stakeholders recommended to the MoH to combine the surveys. Following the MoH decision, CTB will continue to provide TA in finalizing and implementing the combined TB/HIV survey protocol.



GeneXpert Training, Botswana (Photo: KNCV)

CTB-Burma led by FHI 360 and with KNCV as a collaborating partner prioritizes reaching key populations, strengthening the laboratory network, strengthening TB-IC, and helping the NTP in the analysis of and strategic planning for novel intervention strategies.

Strengthening NTRL capacity - During the reporting period, CTB provided TA focused on supporting TB culture and DST activities, biosafety trainings, and discussions on general laboratory issues in the Yangon NRL. All the relevant SOPs were reviewed and updated, and the NRL staff were trained on internationally recommended SOPs. A key outcome of this effort was the development of a phased plan to build NRL capacity to work independently with only supervisory support after two years of intensive TA from CTB.

Engagement of NGO partners - CTB engaged with local NGO partners working in ethnic areas to identify training needs and to increase access to TB services. During this quarter, CTB successfully linked with Karen Department of Health and Welfare. CTB provided training to increase TB knowledge of basic health care staff from 11 townships in Mon State, Kayin State, Thanintharyi Region and East Bago Region. Two trainings were conducted in April, during which 77 community health workers were trained. This is expected to contribute to increased case finding in targeted communities.

Strengthening TB-IC - CTB organized a consultative expert meeting in May, 2016 to discuss revisions of the TB-IC manual. After broad general agreement on the guidelines was reached, a TB-IC Training of Trainers (ToT) for medical officers, TB team leaders, the NTP regional officers and partner international NGOs was conducted in May, 2016. In addition to updating the TB-IC manual with the NTP, CTB has supported the preparation of an accompanying Job Aids Package, Trainer's Manual and Action plan for expanding TB-IC training to township health centers. Furthermore, CTB facilitated TB-IC facility assessments conducted through the GF financial support in eight public health facilities in Kachin State, Mandalay Region and Shan State and in two public health facilities in Northern Rakhine state. Two TB screening units operated by Malteser International in Northern Rakhine State as well as Aung San TB hospital were also assessed. Reports from these assessments will be available next quarter.



TB training for community health workers, Hpa-an, Kayin State, Burma (Photo: FHI 360)

Led by FHI 360 and with KNCV and WHO as collaborating partners, CTB-Cambodia provides TA to the NTP to develop strategies for TB control in rural and urban settings with the primary goal to improve case detection and to close the “diagnosis gap” by targeting specific risk groups. The rural strategy focuses on comprehensive CB-DOTS, to include key populations such as children and the elderly. The urban strategy prioritizes the engagement of large hospitals, public-private mix and prisons.

Educational Tools Developed - During this reporting period two patient-education banners were approved by the NTP and printed. The banners aimed to (1) Instruct presumptive TB patients on how to produce good quality sputum and (2) To increase knowledge and awareness of symptoms suggestive for TB. More than 500 banners have been displayed in the communities, at health centers, referral hospitals and public places, such as pagodas, in CTB targeted areas to increase the TB awareness of communities, which is hoped will promote the health seeking behavior of communities for early TB diagnosis and treatment. The remaining 700 banners will be distributed in the next quarter.

ACF implemented in targeted communities - The Cambodia Anti-TB Association, with financial and technical support from CTB, implemented house-to-house TB screening in three operational districts (Kampong Speu, Sampeou Meas and Bakhan). From April-June 2016, among 14,499 individuals were screened using a symptom questionnaire, and 9,067 (62%) presumptive TB patients were identified; 8,943 (99%) were examined by chest X-ray; 2,722 (30%) patients had abnormal results, all of which had sputum samples sent for Xpert testing; 232 (9%) patients were bacteriologically confirmed including two patients with Rifampicin-resistant TB (RR-TB); and 408 (15%) patients were diagnosed clinically. This would reflect a prevalence of active TB of about 4,414 per 100,000 individuals assessed through house-to-house screening, which is six times higher than the WHO estimated prevalence for all forms of TB (668 per 100,000 population, Global TB Report 2015).

Assessment of semi-active case finding (semi-ACF) in pagodas - From 29 May to 8 June, CTB assessed the semi-ACF program in pagodas in two operational districts (Korng Pisey and Prey Chhor). The objectives were the following: (1) To assess change in case notifications over time & positivity rate among the elderly; (2) To assess the semi-ACF methods used; (3) To provide observations from the field; and (4) To provide recommendations for diagnostic algorithms and expansion of semi-ACF program among the elderly. Based on preliminary results, the semi-ACF program provides a higher yield of TB case notification among elderly people compared to the national TB notifications in 2015 (more than 2,000 per 100,000 population vs 390 per 100,000 population, respectively). The number needed to screen based on the risk prioritization method is less than 100 across the two operational districts.



TB awareness raising banner in front of Lvea health center, Prey Chhor OD, Kampong Cham province, Cambodia (Photo: Ngo Menghak)

Democratic Republic of the Congo (DR Congo)

The Union is leading the CTB project in DR Congo while working closely with MSH (conducting TB/HIV activities in PEPFAR-supported provinces) and KNCV. The project focuses on increased TB case finding, expanded PMDT, integrated TB-HIV care, and increased capacity of the NTP, HCWs and community workers.

Private health facilities engaged - TB case detection was continued in 70 private health facilities. CTB conducted assessments and trained staff in these health facilities in Year 1, which followed by continuous supervision during Year 2. A total of 879 TB cases (all forms) have been detected in these facilities since October 2015 (266 in the first quarter, 201 in the second, and 412 in the third).

The sample transportation system for Xpert testing - The sample transportation system for Xpert testing is operational in the seven CTB-supported provincial coordination areas. Sputum samples were transported with CTB support from diagnostic treatment centers to the provincial coordination areas to be tested by Xpert and further to the NRL to be tested by c/DST when Rifampicin resistant. This quarter, among 1,155 presumed MDR-TB patients, samples of 975 patients (84%, 975/1,155) were transported and tested; of which 206 (21%, 206/975) were confirmed bacteriologically confirmed TB cases; and of which 33 (16%, 33/206) were RR-TB - four among new and 29 among retreatment cases. To date, 23 of these patients have started MDR-TB treatment.

ACF activities by local partner NGOs - CTB supported local NGOs “Ambassadeurs de lutte contre la tuberculose”, “Femme plus”, “Club des Amis Damien” and “Ligue nationale antituberculeuse et antilèpreuse du Congo” which increased the number of TB cases detected through their activities this quarter. This quarter, a total of 50,043 persons were sensitized and screened for TB using a questionnaire administered by the NGO staff members; among them, 5,998 (12%) patients with presumptive TB were identified and referred to health facilities to be tested by smear microscopy; of which 1,026 (17%) were diagnosed with TB (all forms); bacteriologically confirmed 826 (81%); clinically diagnosed 104 (10%); and extra pulmonary TB 96 (9%).

TB/HIV activities - CTB supported HIV visits to 93 sites by provincial joint TB/HIV teams to co-infection sites in health zones in the three PEPFAR provinces: Haut - Katanga, Kinshasa and Lualaba. In general, TB/HIV activities are integrated and data collection/reporting tools for TB and HIV (registers, records of patients) exist in all sites. Recommendations were also developed relevant to the sites (e.g., to improve quality of care and treatment services for TB/HIV co-infected patients), to the health zones (e.g., develop a map of TB treatment centers in each health zone), and to the provincial TB/HIV teams (e.g., standardize TB/HIV data collection tools, organize training on package of TB/HIV services and on TB-IC), which will be followed-up over the next quarters.

of Isoniazid prophylaxis in the supported HIV and TB/HIV co-infection sites in the PEPFAR provinces (Katanga and Lualaba). In general, about 40% of sites implement the Isoniazid prophylaxis guidelines, although half of those sites do not comply with all prerequisites before starting the treatment. Providers are not sufficiently trained on IPT guidelines, which prioritize IPT use among PLHIV and pediatric contacts of bacteriologically confirmed TB patients in whom TB disease has been excluded. Twenty-five percent of sites implementing IPT, only provide it to PLHIV and another 30% only provide it to children (the remaining 45% provide IPT to both PLHIV and children). To improve the utilization of IPT by eligible PLHIV and children under 5, CTB will conduct a number of activities next quarter, including the orientation on IPT of HIV sites, provision of 100mg and 300mg Isoniazid, mentorship and supervision of sites, etc.



Assessment of IPT among PLHIV - From May 16 - June 6 2016, CTB conducted an assessment on the use

Ethiopia

CTB is led by KNCV in Ethiopia with WHO and MSH as close collaborating partners. The new 18-month (Apr 2016-Sept 2017) “expanded CTB” work plan touches upon every CTB technical area with the greatest emphasis on patient-centered care especially targeting MDR-TB, community TB, and TB/HIV services. Strengthening data quality and M&E is also a cornerstone of the work plan. The project is concentrating efforts at the regional level, in Southern Nations and Nationalities (SNNPR) and Tigray regions as well as seven new regions. National-level TA is targeting only specific technical areas, while support for Urban TB activities is focused in Addis Ababa, Dire Dawa and Harari.

Launching of expanded CTB project - The expanded CTB project launch event was successfully conducted on 28 June 2016. Multiple stakeholders were brought together and the project strategy was shared with the public. Participants of the event included senior officials of the Regional Health Bureaus, USAID officials and the delegates of international and local partner NGOs home office representatives of CTB partners: KNCV and MSH and WHO country representatives, staff of USAID/HEAL TB and the local media.

TB prevention and care in prisons - In collaboration with the federal MoH, CTB coordinated and conducted a national consultative workshop at Adama town from June 15-17, 2016 for the finalization of SOPs for the implementation of TB prevention, screening and care for inmates in police detention centers and prison facilities. Participants included 11 stakeholders from the federal MoH, federal police commission, and federal prison administration as well as CTB and WHO. The next step will be to training and orientate prison staff on the SOPs, which will be carried out over the next quarters.

EQA for AFB microscopy - During the reporting period, the national EQA guideline (developed in 2009) have been revised and updated through CTB support, as new technologies, e.g. LED microscopes, have become available in the country. In addition, the National TB guidelines were revised and changed the spot/morning/spot sputum sample collection to two samples same day diagnosis, which warrants the revision of the EQA guideline accordingly.

Childhood TB - Childhood TB prevention, diagnosis, treatment and care was a key focus area during the reporting period, following the development of the global action plan for childhood TB care. The NTP has taken up important measures in order to address TB in this vulnerable age group. Building on the work started during USAID/TB CARE I support, CTB has made significant contributions to the operationalization of the national roadmap. Integrating TB care services at the Integrated Management of Newborn and Childhood Illness (IMNCI) clinic for children under 5 years of age was a major achievement. The NTP in collaboration with the child health program of the MoH incorporated key intervention areas in the IMNCI manual. Furthermore, CTB is in the process to support an operations research (OR) study to gather evidence on pilot model of integrating TB care service at IMNCI clinic in Addis Ababa and the proposal got approval from Addis Ababa Health office ethical review committee for implementation in the coming quarters.

Drug and commodity management system - CTB assisted the NTP on anti-TB commodities forecasting and quantification with a two-year supply planning. CTB provided technical support to organize a two-day national workshop which was held from June 30 to July 1, 2016. The scope of forecasting covered FLDs, SLDs, Isoniazid, ancillary medicines and lab reagents for the period 2016/17 - 2017/18. Morbidity method was selected for this quantification exercise and QuanTB tool was used to assist forecasting of FLDs and SLDs. This plan will provide evidence-based procurement decisions and sets the stage for the establishment of a consistent mechanism for regular updates of the national forecast and supply plans for TB commodities that ensure TB commodity security at national level.



Event to launch the expanded CTB project, Ethiopia (Photo: Anteneh Tesfaye)



MDR-TB survivor Workinesh (Aged 9) heads off to school , Ethiopia (Photo: KNCV)

The Union is leading CTB efforts in India with close collaboration from KNCV, PATH and FIND. The project has been contributing to TB control efforts in India primarily through a Call to Action to End TB in India. This advocacy campaign aims to mobilize a wide range of stakeholders to demand and sustain high-level domestic commitment to end TB in India. The other important components of the CTB-India project are addressing the gaps and limitations in childhood TB and providing universal access to HIV counseling and testing for TB patients diagnosed in the private sector.

Call to Action for a TB-Free India - The Call to Action established a number of partnerships and engaged different groups in an advocacy campaign with the aim of contributing to TB care and prevention efforts in the country:

- The Call to Action entered into a partnership with Rotary India to raise awareness on TB issues among Rotarians (members of Rotary club) and the following key target groups: schools, private health practitioners, and key populations in selected Rotary districts. Rotary India with 3,500 clubs has a membership of approximately 125,000 spread across the country. As a result of the partnership, the Rotary India National TB Control Committee will reach out to all clubs in the Rotary districts in India and conduct sensitization meetings with stakeholders and awareness generation activities in partnership with the NTP and The Union.
- Medanta - The Medicity, a well-known super-specialty corporate hospital partnering with the Call to Action, launched intensive rounds of a mobile interventions for TB diagnosis in six districts, namely Mewat, Gurugram, Palwal, Faridabad, Jhajjar and Rewari covering approximately 29% of the total population of Haryana. Medanta operates a van that is fitted with digital X-ray and a team led by a pulmonologist which visits peripheral health centers based on a predefined schedule. The project provides free chest x-ray services, close to the homes of presumptive sputum smear-negative patients who would otherwise be unable to access such services.
- The Call to Action engaged the parliamentarians to advocate with policy makers in Rajya Sabha. Two parliamentarians raised questions on TB during the budget session of the parliament. Mr. Harish Chandra Meena (parliamentarian from Dausa, Rajasthan) and Mr. Rahul Kaswan (parliamentarian from Churu, Rajasthan) sought clarification from Government of India about the status of TB treatment and research in India.
- In the popular monthly radio broadcast of the Prime Minister of India (Mann ki Baat), Shri Narendra Modi spoke about TB, saying “Compared to the world we have a large number of TB patients in India. We have to defeat TB in India.”
- Thirty cured TB patients were part of “Community Voices on TB”, a training and empowerment initiative. As a result, five cured TB patients shared their stories at various advocacy forums and on social media (on Facebook, total fans added: 8,932 and total engagement i.e., likes, shares, comments, clicks etc. increased to 94,203). TB survivors shared their stories on their personal battle with the disease. These stories have broken the silence regarding TB and motivated people to fight the stigma associated with it. Weblinks to the videos and social media campaign are:
<https://www.facebook.com/ForTBFreeIndia/videos/626662054174346/>
<https://www.facebook.com/ForTBFreeIndia/photos/a.580972785409940.1073741828.569145766592642/615307101976508/?type=3&theater>



Assessment of TB services in Tibetan Settlements - The report of the 'Assessment of TB services in Tibetan Settlements in India' was finalized following a series of discussions with the Tibetan Department of Health of the Central Tibetan Administration and the Tibet Fund. Given the high burden of both drug-sensitive and drug-resistant TB in these populations, interventions aimed at early diagnosis and treatment through ACF and contact tracing, following diagnostic algorithms that allow for using Xpert as the first line diagnostic test needs to be scaled-up. Airborne infection control measures at the facility and community level are another priority, given the fact that half of the population lives in congregate settings, such as monasteries, nunneries and hostels. Other recommendations include capacity building of all cadres of health staff on various aspects of MDR-TB management with specific modules in the Tibetan script, adoption of uniform diagnostic and treatment algorithms, recording and reporting system, and improved linkages with local NTP facilities.

Improving the diagnosis of children with TB (FIND) - CTB is supporting a project offering upfront access to Xpert testing for the diagnosis of pediatric TB with FIND as the implementing partner. Following the success of the initial project in four cities (Delhi, Kolkata, Hyderabad, Chennai) the project has now been extended to additional three cities (Vizag, Surat and Nagpur) and likely to be extended to two more cities (Bangalore and Guwahati) in July 2016. The below are presented the project results achieved this quarter:

- A 24% increase in the enrollment of children with TB symptoms from the previous quarter was noted with 8,702 suspects tested between April-June 2016 compared to 7,039 suspects between Jan-Mar 2016.
- A total of 9,439 specimens were tested from the above mentioned 8,702 pediatric presumed TB patients, of which 5,350 (57%) were non-sputum specimens. Of these, 3,807 were gastric aspirate/lavage, 543 cerebrospinal fluid, 316 pleural fluid, 221 broncho-alveolar lavage and 140 pus specimens.
- Of the total children presumptive for TB, 665 (8%) were diagnosed with TB, of which 55 (8%) were found to have RR-TB. There has been a significant increase in the project uptake in every successive quarter, with more children tested, accompanied with an incremental yield of TB and RR-TB cases in every successive quarter.



Majeed Memon, MP, Rajya Sabha, India (Photo: The Union)

Indonesia

CTB-Indonesia is led by KNCV and implemented in collaboration with WHO, FHI 360, MSH and ATS. During this quarter, the implementation of CTB-Indonesia was guided by a Dec 2015-Sep 2016 work plan, covering all intervention areas with the exception of targeted screening of active TB. The largest investment is in patient-centered care and treatment (specifically for MDR-TB and TB/HIV).

Development of District Action Plans (DAPs) - The District Planning process was initiated together with the NTP in April 2016 in two districts (Medan City in North Sumatera Province and Tulung Agung in East Java Province), as part of political commitment and leadership strengthening in TB control at district level. The advocacy meeting was conducted with the City Major of Medan and the Deputy of Regent Tulung Agung. Both local governments fully support the formulation of DAPs for TB control, which indicate the strong commitment of both local governments on the TB control program. Both Government leaders also agreed that TB is not merely a health issue and other sectors need to be involved. The next activities on District Planning/DAP development were put on hold because the official terms of collaboration between USAID and the MoH has not yet been finalized.

Prior to the implementation, CTB and the NTP agreed to establish a team called National TB Assistance Team. The team will develop a work plan and detailed activities, including the development of technical guidelines for District Action Plan formulation. The technical guidelines have been tested by the NTP in Bali in June 2016. The guideline was also shared and discussed in a meeting attended by representatives of the District Health Offices and the Planning Agency for Regional Development (BAPPEDA) from all districts in Bali, the Provincial Health Office and Provincial BAPPEDA. The result is a reference for the finalization workshop, which is planned in July 2016.

Technical support to two regional laboratories - CTB provided TA to two regional laboratories, BBLK Jakarta (DKI Jakarta) and Adam Malik Hospital (North Sumatera). As a result, both labs have been certified for DST on second line anti-TB drugs. It brings the total number of certified laboratories for second line DST in Indonesia to seven, thus achieving the 2016-national target.

Xpert rollout - From January to June 2016, the NTP has installed 20 new Xpert machines as part of PMDT expansion. CTB provided TA to the NTP for the Xpert placement, installation, training for the laboratory technicians and troubleshooting. As part of acceleration of GF grant utilization, the NTP is procuring another 200 new machines, to be installed in August/September 2016 and establishing another 191 new PMDT sites. The expansion plan was developed including a cascade training plan. Up to June 2016, a total of 82 Xpert machines have been placed in 33 provinces (40 four-module machines and 42 two-module machines) and the total number of tests increased to 9,551 during the first six months of 2016, an increase of 40% compared to 2015.

The NSP revision - The draft revised NSP was shared with all Provincial Health Offices during the National Monitoring and Evaluation Meeting in May 2016, for their input. CTB provided TA to review the NSP (indicators, strategies and activities), and set the targets for the provincial and district levels. The revised NSP has six strategies, which will be “translated” into the National Action Plan. The target setting for each province and district has been finalized and will be used to define the approach and formulate the activities during planning at provinces and districts assisted by CTB.



CTB & Directorate General of Correction/Ministry of Law and Human Rights sign a memorandum of understanding (Photo: Trishanty Rondonuwu)

CTB-Kyrgyzstan is led by KNCV, and this project is mainly focused on strengthening patient-centered care and treatment.

Implementation of new drugs and shorter regimens - On May 30 2016, CTB facilitated a partners' meeting attended by representatives of MoH, Department of Drug Provision, Karabalta MDR-TB hospital, Bishkek and Chui oblast TB centers as well as WHO, UNDP, MSF, Defeat TB project, and the UNION. The purpose was to identify critical issues and challenges, discuss solutions and make decisions on how to move forward with preparations for the implementation of new drugs and shorter regimens. The most critical issue was that the drug order was not formally accepted by the Global Drug Facility (GDF). CTB provided TA to the UNDP in responding to the GDF questions.

The protocol on introduction of the new TB drugs and shorter regimens was updated in accordance with the last WHO updates announced in May 2016. Based on this protocol CTB consultants will train the NTP staff including clinicians, lab and M&E specialists, drug management specialists and nurses in July 2016. The protocol will be adjusted in accordance with participants' feedback and will then be submitted to the ethics committee. The endorsement by the MoH in August 2016 will be the final step.



CTB Director Kyrgyzstan Bakyt Myrzaliev presents updates on TB drugs and short regimens (Photo: Gulzat Sultanidinova)

KNCV is the sole implementer in Malawi. The project's primary focus is on increasing case detection through intensified case-finding, targeted active case-finding (e.g. mobile teams using digital chest X-ray/CAD-4TB screening, followed by Xpert examination), and contact investigation. Another key focus of the project is on strengthening the NTP leadership at central, zonal and district levels. In Year 2, CTB will be implemented at the national level, in all five zones, and in 15 scale-up districts within these zones.

Strengthening laboratory network - CTB supported a workshop in Salima in May 2016 with the aim of updating the National Laboratory Strategic plan. In attendance were the MoH Diagnostics Unit, the NTP, the MoH Central Monitoring and Evaluation Division as well as partners such as URC and Dignitas. The outcome of the workshop was a draft National Lab Strategic Plan. Over this quarter, CTB also supported the renovations of the reference laboratory, updated EQA guidelines, trained 27 microscopists on AFB microscopy, and supported the NRL staff training in France (two NRL staff and CTB Diagnostic Network Advisor attended Xpert training in Toulouse) and Uganda (four NRL staff attended training on FLD DST at the Uganda SNRL).

Strengthened ACF/intensified case finding (ICF) - CTB recruited and formed two ACF teams comprised of five members each for Blantyre and Lilongwe Districts. These teams will conduct both ACF activities in well targeted high-risk communities, as well as enhanced ICF activities using X-ray in six health facilities in CTB priority districts after staff orientation by the NTP and CTB. Draft SOPs and an implementation protocol were developed, before these ICF activities began. Three of the four Xpert machines procured for ACF/ICF were installed and are in use in three facilities. Procurement of two mobile X-rays and CAD4TB software began this quarter and the X-rays will be delivered in July 2016. A total of 103 HCWs from the six facilities participated in basic TB/HIV management training conducted by the NTP and CTB. CTB also supported setting up of an ACF database system for M&E. Baseline data to monitor CTB contribution to increasing case finding is being collected and will be finalized next quarter.

Capacity building of Health Surveillance Assistants (HSAs) - HSAs are the backbone of health services provision in Malawi, they provide essential health services and act as a link between community and health facilities. In May 2016, the CTB and NTP teams organized basic TB training for the HSAs in CTB priority districts. To date, 779 of the 6,017 HSAs (13%) have been trained and these trainings will continue in the fourth quarter. It is expected that through these trainings, HSAs will contribute to increased awareness of TB in communities and early case detection.

Strengthening TB-IC - CTB organized a ToT workshop for 13 trainers to build capacity of Infection Prevention Committees (IPCs). This was followed by onsite workshops in five districts where a total of 49 participants were trained in TB-IC. During these workshops, a training plan was developed for scaling-up the trainings to all relevant districts/facilities. The next steps include conducting targeted supervision, monitoring staff compliance with standards, and finalizing draft documents such as the second edition of the TB-IPC Guidelines, a costed 4-year plan, facilitators' Manual and facility work plans.

Roadmap for electronic recording & reporting (ERR) developed - Together with the NTP, CTB organized and facilitated a two day workshop held in Blantyre from June 1-2, that was attended by different stakeholders such as Baobab, the MoH, the NTP and CTB. The outcome of the workshop was a defined roadmap for ERR which should build onto current systems. Short-term recommendations included establishment of an ERR technical working group whose mandate would include definition of priorities and oversee implementation. Long-term recommendations included development and implementation of a digital TB register at district level and scale down to facility level. Moving forward with the recommendations, CTB and the NTP have planned a meeting in July to discuss the implementation of these activities. One of the major areas of discussion will be coordination between CTB and GF investments towards ERR.

CTB-Mozambique is led by FHI 360 and has KNCV as the sole collaborating partner. In Year 2, CTB will work closely with NTP in the following technical areas: improving case detection (community engagement, quality assured lab network expansion), improving quality of care for all categories of patients (TB, TB/HIV, MDR-TB and childhood TB), strengthening the TB surveillance system with a view to have an electronic individual TB register in place that is interoperable with other health information systems (MoH and HIV), and conducting the first TB prevalence survey. The project will be implemented in four provinces of Nampula, Zambézia, Sofala and Tete.

Community-based DOTS (CB-DOTS) rollout - This quarter, CB-DOTS was rolled out in all CTB provinces. A total of 998 health personnel were trained in DOTS. Subsequent to the training, CHWs received CB-DOTS kits (composed of a t-shirt and cap, CB-DOTS materials and bicycles to enable them to carry out their activities). Through the community activities, 6,221 patients with presumptive TB were referred to health facilities; out of 5,228 (84%) reaching health facilities for TB screening, 847 (16%) were diagnosed with TB (all forms); 501 (59%) were bacteriologically confirmed. All diagnosed cases were initiated on treatment.

Number of children under 5 who were initiated on IPT increased - Community volunteers intensified CI activities this quarter, with a substantial increase in the number of children under 5 years of age who were initiated on IPT as part of the CB-DOTS activities. The activities carried out will not only focus on identification and referral of contacts but will also strengthen treatment adherence and completion. The project will now include IPT as part of CB-DOTS follow up activities. In Tete Province, for example, there was a substantial increase in children (from 0 to 69) initiated on IPT between April and June 2016.

TB support groups established - With CTB support, 28 TB support groups were established in Tete Province. The groups have a total membership of 77 TB patients; criteria for group membership includes being a current or ex-TB patient and living in the same area for easy contact. Current group activities include: (1) Treatment support among members; (2) Community education on TB prevention; (3) TB care and TB infection control; (4) Tackling issues related to stigma; and (5) Visiting health facilities to collect TB drugs. This activity is likely to reduce the transportation costs for individual members and allow them have more time to concentrate on other activities such as income-generating activities. Attention is given to ensure that each member has an opportunity to visit a health facility not just to collect TB drugs (for all members) but also for clinical consultations. In the future, these group members will be “TB Champions” capable of advocating for improved TB prevention and care services. With these treatment support groups, the project expects 100% treatment adherence. This initiative is being expanded to other CTB districts and provinces.

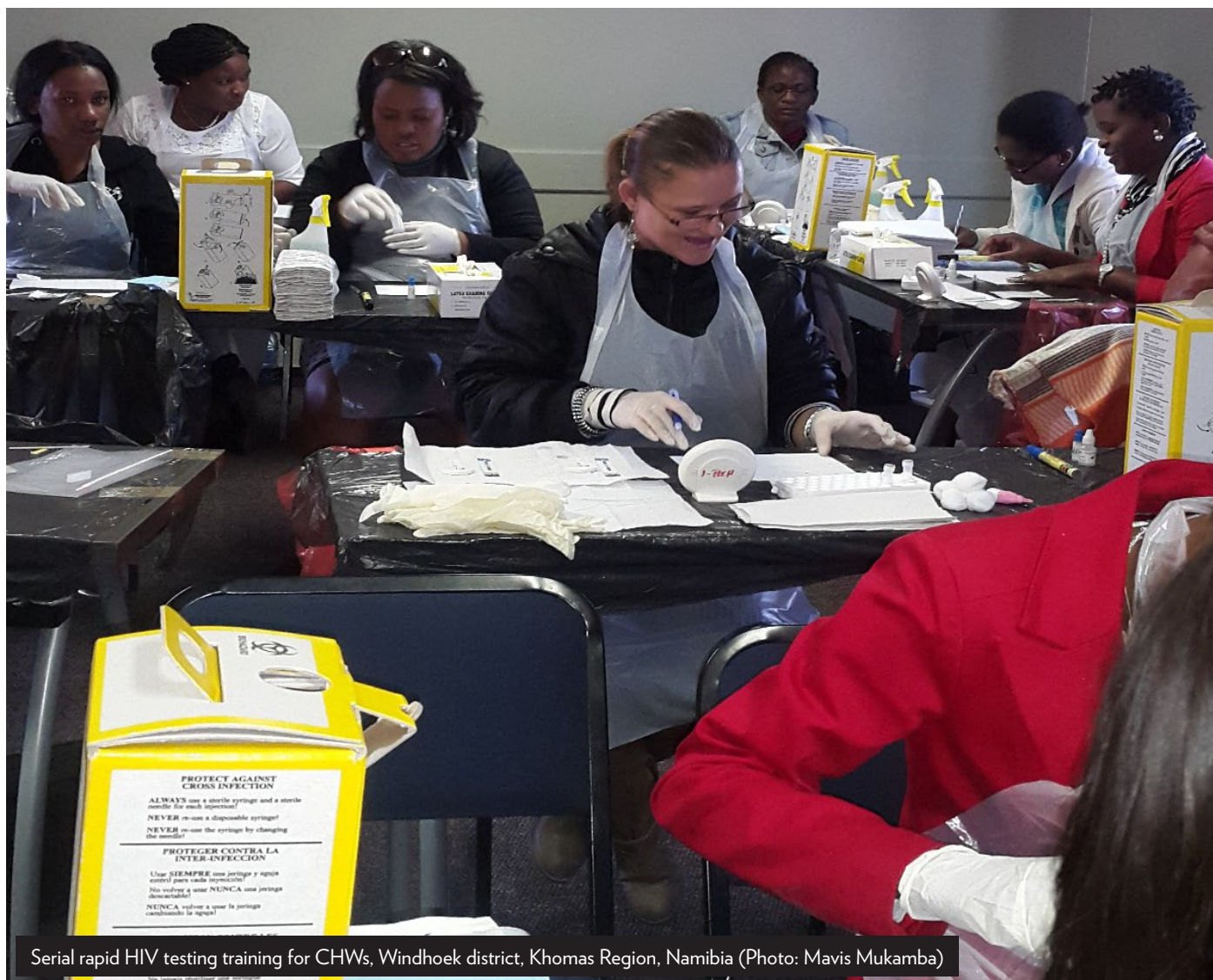


CTB-Namibia commenced in October 2015 and has been implementing activities approved for the period October-November 2015 and pre-approved activities for the period of December 2015-March 2016. The new 10-month work plan covering December 2015-September 2016 was approved at the end of March 2016.

Decentralization of ART - Under TB CARE I, KNCV Namibia procured 28 prefabricated containers to provide TB-DOT in four districts and in Year 2 CTB planned to optimize the utilization of these containers. In Engela district (one of the CTB districts), a total 2,721 stable PLHIV who were originally receiving their ART at Engela District Hospital are now receiving it from six TB DOT points in Engela district, which are supported by CTB. This approach will be rolled-out in three more CTB districts in fourth quarter of Year 2 and Year 3.

Strengthened TB/HIV services - CTB conducted assessment in 40 facilities in five CTB regions to assess their readiness to integrate TB/HIV services and develop facility-specific plans addressing integration. In line with one of the key recommendations of this assessment, CTB Namibia conducted a training of 139 CHWs and Field Promoters to strengthen TB/HIV Collaborative activities in five CTB districts. Field Promoters have traditionally concentrated on provision of TB services, whilst CHWs and community counselors have concentrated on HIV care services. Bringing these groups together for training empowered them to provide integrated TB/HIV care services to co-infected patients. CTB Namibia intends to strengthen supportive supervision through the use of a monitoring tool which will be developed by making adjustments to the assessment tool utilized in the facility assessments.

New Regimens for DR-TB treatment - CTB Namibia provided TA to the NTP on accessing the USAID donation program for BDQ. During this quarter, seven patients (five in Windhoek and two in Oshakati) were started on this treatment and more are being considered for the next quarter. One patient started on DLM under the compassionate use program.



Serial rapid HIV testing training for CHWs, Windhoek district, Khomas Region, Namibia (Photo: Mavis Mukamba)

KNCV is currently the lead and sole implementer in Nigeria. The project was launched in August 2015 covers the following technical areas: patient-centered care and treatment, comprehensive high quality diagnostics, enabling environment, political commitment and leadership as well as quality data, surveillance and M&E. CTB will work towards universal access to TB diagnosis and treatment in 12 priority states, focusing heavily on increasing case notification in a country with an estimated case detection of only 15%.

Engagement of patent medicine vendors (PMVs) - During the quarter, as a follow-on to the mapping of community PMVs CTB orientated an additional 90 PMVs in Kano and Katsina bringing the total PMVs oriented and engaged cumulatively to 180. From the activities of the PMVs during the quarter 426 presumptive TB cases were referred, in Kano, Katsina, Rivers and Cross Rivers; 35 TB cases were identified of which one was a RR-TB case. All were linked to appropriate treatment.

Expansion of microscopic services - After the delivery of 94 microscopes in the previous quarter, during this quarter CTB was able to expand microscopic services across the 12 CTB-supported states, and there contribute to an increase in microscopic coverage nationally. From the 84 sites that were assessed for possible expansion of diagnostic services, 42 new LED microscopic sites were established and the capacity of the laboratory staff was built to conduct AFB microscopy services. In all a total of 111 laboratory staff were trained during the quarter. The data from the sites are yet to be compiled to provide a comprehensive report to demonstrate the impact obtained from AFB services.

Expansion of Xpert services - Ten additional Xpert machines were installed, bringing the total machines installed cumulatively under the CTB project to 32 (12 of which were procured through the PEPFAR grant). To further ensure the effective utilization of the Xpert machines, CTB continued support to ensure the hub and spoke model for sample movement to Xpert sites. A total of 5,569 sputum samples were transported during the quarter and the results are part of the Xpert reporting system.

Pediatric TB - In order to ensure that pediatric TB cases receive attention, CTB supported pediatricians to monitor progress by conducting follow-up supervisory/mentoring activities to high burden pediatric clinics. A total of 67 supportive supervision visits were conducted. Additionally, pediatricians in Akwa Ibom and Cross Rivers led children-focused outreach in high-density population communities. A total of 17 children were diagnosed with TB. A case of a child with gibbus deformity (extra-pulmonary TB resulting in the collapse of a vertebra in the spine) was also picked up by a pediatrician in Rivers state. The boy was placed on the appropriate anti-TB regimen.

Improved contact investigation - CTB embarked on CI of bacteriologically positive TB cases in six states. The purpose was to curtail the transmission of TB within the household of patients and provide care for those who might have contracted TB. Index TB patients' houses were visited and household members screened. In all, a total of 675 index TB patient households were visited, from which 1,756 household members were screened for TB; 891 sputum samples were collected for diagnosis and 96 bacteriologically confirmed TB cases were detected, corresponding with 6% of the identified household members and 11% of those that submitted samples. AFB and GeneXpert were used as per availability. All have been linked to treatment services.

Expansion of PMDT - CTB continued to support the enrollment of MDR-TB cases across the 12 states. A total of 149 DR-TB patients were enrolled on treatment during this quarter, including 124 (83%) patients who were enrolled on treatment at the community level. In addition, CTB is providing economic support for 476 DR-TB patients across the 12 states and 13 patients received hearing aids during the quarter.

Improved political commitment and leadership - The CTB consortium, with support from other stakeholders, The Stop TB partnership Nigeria and in collaboration with the NTP, held its first national TB conference in May 2016 in Abuja, Nigeria with the theme "The Hidden Face of Tuberculosis: Challenges in Identification and Management among Vulnerable Groups in Nigeria". The conference was attended by over 1,200 participants and had key speakers such as Dr. Eric Goosby, UN Special Envoy on TB, Dr. Lucica Ditiu, Executive Director Stop TB Partnership, and Dr. Maarten van Cleeff, CTB Project Director. The keynote address centered on the need for government commitment to find and eradicate TB and in Nigeria as soon as possible. The conference came to an end with the crowning of several TB champions, who have been exceptional in the fight against TB in Nigeria.



2016 TB Champions, Nigeria (Photo: Habiba Bello)

South Sudan

CTB-South Sudan is led by MSH and has KNCV as the sole collaborating partner. In Year 2, CTB is strategically focusing on increasing case notification and improving treatment outcomes by supporting the expansion of quality and sustainable TB care services in the three states of Central, Eastern and Western Equatoria, which have high populations and a high burden of TB and HIV. In addition, CTB will support the provision of TB services to the displaced population and expansion of quality-assured TB diagnostic services beyond the three states.

Improved quality of microscopy services - Up to this quarter, 26 LED microscopes have been distributed in seven states. In addition, 26 lab technicians were trained on the use of LED microscopy. Results of data analysis in four demonstration sites showed an increase in slide positivity rates between the period of Sep-Dec 2015 and the period of Jan-Mar 2016. All rates are above the WHO recommended range of 10%. Cumulatively, the number of laboratories involved in EQA has increased from 38 in 2015 to 48 in Jan-Jun 2016 (26% increase). Among the 31 laboratories that were rechecked, 92% demonstrated 100% concordance.

Increasing TB case notifications and treatment success rate - CTB supported the NTP in establishing 19 treatment centres in the Central and Eastern Equatoria regions, strengthening its information system, conducting quarterly joint supportive supervision, networking and sharing information through the TB technical working group, and coordinating with implementing partners and health workers to generate the TB quarterly report. CTB also trained 318 HCWs between Oct 2015 and Jun 2016; and integrated 12 laboratories to perform TB microscopy. As a result, out of 4,830 TB cases (all forms) notified between Jan-Jun 2016, 50% were notified from CTB intervention areas.

Improved contact investigation (CI) - Between Jul 2015 and Jun 2016, a total of 2,272 sputum smear positive (SS+) index cases were reported (in Juba, Yei, Morobo, Mundries and Lainya) and 373 received home visits from trained home health providers, through which 3,406 contacts were registered and screened using standard CI tools. Among those, 455 (15%) were below the age of 14. Of all the contacts screened, 635 (19%) were identified as presumptive TB patients and were referred for diagnosis, and 60 (9%) patients were confirmed SS+ cases. The TSR for contacts started on TB treatment will be measured in the Jul-Sept 2016 period as CI was initiated in the same quarter last year. IPT for children under the age of five is not routinely reported and data is not available for analysis.

Provision of services to Internally Displaced Populations (IDPs) - Through CTB support, quality TB services are more accessible to displaced populations. Through the NTP, and in collaboration with partners, CTB has coordinated the provision of lab equipment, TB lab supplies, and TB drugs. Monitoring and supervision are regularly conducted jointly with NTP. The quality of TB laboratory services has been monitored by including the labs in the EQA network. Cumulatively, 495 TB cases have been diagnosed and enrolled on treatment within the intervention area since Oct 2014 (this quarter - 28 cases in the Juba Protection of Civilians (POC) site and 21 cases in Minkaman IDP camp). The TSR for POC is 71% and 82% for Minkaman.



Home Health Promoters raise awareness about TB, South Sudan (Photo: MSH)

CTB-Tajikistan is implemented by KNCV. In Year 2, CTB-Tajikistan continues working to improve quality of care for patients with M(XDR)-TB by building the NTP's capacity to manage and implement a shortened treatment regimen and regimens containing new TB drugs. In line with this, CTB will also build the NTP's drug management capacity and support the implementation of an early warning system (QuanTB) for all supply chain levels.

Introduction of New Drugs and Shorter Regimens - In April 2016, the MoH approved the National Plan on Introduction of New Drugs and Shorter Regimens in Tajikistan (MoH Order # 285) developed with CTB support. The key specialists from the MoH, NTP and partner organizations (MSF, Project HOPE, Caritas Lux) were involved in the development of the plan, according to which new drugs and shorter regimens will be implemented in two phases: 1. Shorter regimens and new drugs will be introduced in pilots and 2. When the interim results of implementation in the pilots are obtained, the new approach for the diagnosis and treatment of MDR-(XDR-) TB cases will be rolled-out across the country.

Development of PV/active-TB drug-safety monitoring and management (aDSM) system - This quarter CTB took the first steps towards the development of a PV/aDSM system and an interim aDSM database recording and reporting system for PV/aDSM. Namely, CTB provided TA in development of functional design of PV/aDSM module in OpenMRS, which is the existing ERR system in the country. In addition, CTB supported the development of a roadmap to improve functionality of the OpenMRS in the country. It was agreed with the NTP and other partner organizations that the interim aDSM database will be used for registration of adverse events observed in patients on new regimens until the OpenMRS PV/aDSM module will become operational, which is planned for Year 3.

Improved capacity in cohort analysis - CTB provided TA to the NTP in conducting a cohort analysis of DR-TB patients in Dushanbe with consideration of the introduction of new regimens. Twenty-nine TB specialists and heads of Dushanbe city health centers took part and contributed to a cohort analysis workshop held on May 5, 2016. The analysis of MDR-TB treatment cohort for 2013 in Dushanbe showed 67% treatment success rate (TSR); 17% of patients died during the treatment. The remaining 16% (8% loss to follow-up and 8% treatment failure) of MDR-TB patients have a high risk of dying or of developing additional resistance to SLDs.

Logistic Management Information System (LMIS) - CTB supported the introduction of the updated LMIS guidelines for first line drugs (FLDs) and SLDs. Three two-day trainings were conducted for 50 TB managers and drug management specialists of the Khatlon (Kurgan-Tube area) and GBAO regions, improving their knowledge on LMIS for FLD and SLD including proper maintenance of revised recording and reporting LMIS forms, formation of drug requisition (order), stock management, drug forecasting and quantification. Furthermore, CTB provided support to the NTP and the GF grant project implementation unit in calculation of anti-TB drugs for short regimens and regimens containing new drugs to be procured through GDF. Patient enrollment is planned for Dec 2016 when drugs including BDQ will be delivered to the country through the GF grant.



Led by KNCV, with collaborating partners PATH and ATS, CTB-Tanzania is focused on all CTB technical areas apart from the management of LTBI, and drug & commodity management systems. The project is implemented in the seven regions of Arusha, Dar es Salaam, Geita, Kilimanjaro, Mwanza, Pwani and Zanzibar.

Improved community based TB, TB/HIV and DR-TB interventions - CTB supported the development of the national operational guidelines for community based TB, TB/HIV, DR-TB, and contact investigations, including the tools for monitoring of these interventions. These guidelines will enable community interventions to be done in a structured manner and the contribution of these interventions towards improving case detection to be monitored and measured. To complement the use of the guidelines a training on Advocacy Communication and Social Mobilization (ACSM) was conducted in three districts of Meru, Kinondoni and Geita involving 102 participants including community volunteers, regional and district TB coordinators. It is expected that the contribution of cases notified from the community will increase as a result of increased awareness. The implementation of the guidelines will commence in the fourth quarter. These trainings will eventually be rolled-out to most CTB districts in Year 3.

Increased case notification - A total of 6,356 TB cases all forms were notified from the 42 CTB districts, a 5% increase compared to 6,054 last quarter. Private providers contributed to 15% of the total notification compared to 8% last quarter as a result of sensitization of coordinators to include private facilities in supervisory visits. CI was done for a total of 194 drug-sensitive index cases, 444 of their contacts were screened and a total of 27 were confirmed to have drug-sensitive TB (13%) out of the 215 that were presumptive for TB. For eight DR-TB cases, there were a total of 51 contacts who were all screened; six were presumptive TB, one was confirmed with RR-TB (17%) and one was found with Mycobacteria other than TB (MOTT). All were started on treatment signifying the opportunity for detecting TB cases through systematic contact investigation.

Improved TB/HIV collaborative activities - In this reporting period CTB continued to consolidate previous achievements in TB/HIV by training 30 district TB and TB/HIV coordinators on the national TB/HIV collaborative services package. Participants were new district coordinators who had never been trained on the package before. This training equipped them with knowledge and skills that will enable them to play their roles with increased confidence and proficiency. Out of 6,356 TB cases (all forms) notified this quarter, 6,177 (99.5%) TB patients were counseled and tested for HIV and received their results - an improvement from 98% last quarter. The TB/HIV co-infection rate remained at 33% (2,108), among whom 95% (1,997) were initiated on ART compared to 92% in the previous quarter; 98% (2,071) were started on Co-trimoxazole preventive therapy.

Pediatric TB - To improve pediatric TB diagnosis, care and treatment CTB in collaboration with the NTP and other implementing partners supported the updating of the national pediatric TB/HIV training package. CTB will use the package to train HCWs in all priority regions in Year 3 to improve their knowledge, skills and practices in pediatric TB case finding and management after an assessment using the KNCV Childhood TB Benchmarking Tool. Contribution of pediatric notification this quarter remained at 11%, this is expected to improve as a result of the planned training.

Strengthening TB surveillance among HCWs - CTB has continued to strengthen TB surveillance among HCWs in all priority regions. A total of 2,747/17,008 (16%) HCWs were screened for TB and 17/2,747 (0.6%) were confirmed to have TB and started on treatment. This is a significant improvement compared to previous quarter when 760 HCWs from all CTB regions were screened for TB, with 7 (0.96%) HCWs diagnosed as having TB, none were screened in the preceding quarter.

Data Quality Assessment - CTB supported the NTP in the development of a new national TB Routine Data Quality Assessment (RDQA) tool which will be used at national, district and health facility levels for quality assurance of data. This tool has components for system assessment, data verification, and completeness checking and improvement plan. CTB has started using the tool in five CTB districts. Issues found during this quarter included inconsistency between reported data and source documents, which occur during entering data from patients' files to unit registers and further from unit registers to district registers due to irregular update of these registers. Data quality improvement plans were made accordingly. It was agreed in the improvement plans that data at the facility level will be updated at end of every day by DOT nurses, and that district registers will be updated every month using the unit registers. The tool is expected to be used countrywide to improve data accuracy and consistency.

PATH is the lead partner in Ukraine, working closely with KNCV. In Year 2, CTB-Ukraine continues supporting the NTP and oblast TB programs to expand and improve a model for a patient-centered approach to MDR-TB care based on ambulatory treatment and quality improvement of MDR-TB control services.

Improved patient-centered approach to MDR-TB care - The project continued to expand and improve a model for a patient-centered approach to MDR-TB care based on high-quality ambulatory treatment and other MDR-TB control services. Specifically, the project extended patient-centered approach activities to a new project partner oblast (Kyivska oblast). In addition, the following achievements were made this quarter:

- The draft clinical guidelines for side effects management for TB and DR-TB patients were finalized and submitted to the Ukrainian CDC and the State Expert Center for further approval by the MoH for countrywide implementation. The first webinar in guideline principles was conducted in June, in collaboration with the National Research Institute on TB and Lung Diseases. More than 120 participants from 21 oblasts in Ukraine took part. Next quarter, CTB plans to support a series of all-Ukrainian webinars on various topics as an efficient way of information sharing that will allow all TB and other interested providers in Ukraine to participate.
- CTB provided social, psychological, and other support to 253 MDR-TB patients to ensure their treatment completion at the ambulatory phase. Three NGOs in Poltavaska and Mykolaivska oblasts provided 170 MDR/XDR-TB patients with medical, nutrition, transport, legal, and other support as needed. In addition, 83 MDR/XDR-TB patients in two project oblasts were supported by the Mykolaiv and Poltava oblast branches of the Ukrainian Red Cross Society (URCS). The URCS visiting nurses provided ongoing medical and social support to prevent loss to follow-up and ensure DOT at the ambulatory phase of treatment. CTB has engaged all local partners in implementing the patient-centered strategy and creating multi-disciplinary teams including TB doctors, DOT curators, social workers, and psychologists to address structural barriers to treatment adherence.

Introduction of new drugs and shorter regimens - CTB worked on finalization of a draft protocol for introducing new drugs and shorter regimens for the treatment of MDR-/XDR-TB. Currently, the protocol is being reviewed by in-country stakeholders, the PMU, and USAID and will be finalized according to their recommendations. Based on intensive discussions with providers from Kyivska oblast (the proposed site for implementation of the operations research), nine SOPs were drafted, including MDR-/XDR-TB case detection at different levels of care, pharmacovigilance, patient monitoring, and other key elements. Furthermore, CTB provided assistance to the NTP in developing the BDQ donation request, identifying the best approach to assure supply, calculating the number of patients involved, and 'preparing the ground', i.e., providing TA to Kyivska oblast to improve utilization of existing resources, train providers in MDR-TB case management and side effects management, ensure the quality of the laboratory diagnostics, strengthen the TB case management at the ambulatory stage, and ensure proper monitoring. Patient enrollment is expected to start in the first quarter of Year 3.

Improved ACF - To ensure timely detection, diagnosis and treatment initiation for potentially missed TB cases, CTB conducted a workshop in Poltavaska oblast with all involved parties to discuss a developed draft algorithm of CI and the roles of TB services, sanitary-epidemiology services, and primary health care services in TB contact investigation and management. CTB also finalized the set of recommendations to be suggested to the national contact investigation strategy. Over the next quarters, the CTB project will support the pre-testing of a holistic system of TB CI and follow-up in Mykolayivska and Poltavaska oblasts.

Uzbekistan

CTB project in Uzbekistan is aligned with the Uzbekistan NSP 2016-2020 and the USG TB Strategy. The goal of the project is to enhance focus on improving patient-centered quality TB services, building local capacity and the utilization of innovations and new technologies to move forward in the global fight against TB. Interventions planned in CTB Year 2 are being implemented through the WHO Country Office in Uzbekistan under leadership of KNCV. KNCV and WHO work in close collaboration with the MoH, NTP and the GF Project Implementation Unit housed at the Republican DOTS Center as well as international partners such as Project HOPE, KFW and MSF, to ensure optimal synergy of all investments. During the reporting period, KNCV and WHO developed a joint work plan and budget (through September 2016) and obtained approval from USAID. The project team is preparing for a new drugs and regimen training, planned for July.

Vietnam

CTB-Vietnam is led by KNCV and works closely with WHO as a collaborating partner. The overall strategy of CTB in Vietnam is to develop, pilot and evaluate TB control innovations that are planned under the NSP (2015-2020), in close collaboration with the NTP, the USAID mission and partners. The project works in all CTB technical areas with the exception of enabling environment, targeted screening for active TB, and drug & commodity management systems.

Xpert implementation and rollout - With CTB TA, the NTP/GF NFM procurement package of extended warranty for 28 GeneXpert (Xpert) machines, 10 modules & two central processing units for in-country stock under NTP/GF NFM 2015 has been placed. The NTP has received the equipment/spare parts and replaced the defective ones; CTB will continue to provide technical support to the NTP/GF NFM in the procurement of 20 new machines and 50,000 Xpert MTB/RIF cartridges under NTP/GF NFM 2016 covering all 63 provinces.

Introduction of new drugs and regimens (ND&Rs) - From May 30 - Jun 7 2016, CTB provided TA to the NTP and National Drug Information and Adverse Drug Reactions Center to review the implementation of the triage and treat protocol, including PV/aDSM of ND&Rs in three sites implementing BDQ treatment as well as treatment with the 9-month regimen, to prepare the protocol for the 2nd National TB Prevalence Survey and to discuss implementation of continuous surveillance for drug-resistant TB and other progress in OR. This was combined with TA on national guidance on MDR-TB contact investigation as well as application and outcomes of Quarterly Interim Cohort Analysis (QICA) among enrolled MDR-TB patients and implementation of the diagnostic chain analysis (DCA). Several recommendations were made including strengthening the patient triage, assisting contact investigation, shortening patient waiting time, use of DCA and QICA, the optimal use of e-TBM and support for CTB in expanding its laboratory services.

Improved TB-IC measures in district health facilities with TB-HIV integrated services - TB-IC facility assessments have been conducted in ten districts with a high number of MDR-TB patients or TB-HIV integrated services. The TB-IC improvement plans have been developed by the district staff and reviewed by the provincial and CTB staff.

The Union is leading the project in Zimbabwe with collaboration from IRD, KNCV and WHO. The Year 2 work plan prioritizes the following areas: improving access to and quality of diagnostics, increasing case finding, integrated TB/HIV care, PMDT, childhood TB, and M&E/surveillance.

Childhood TB intervention package expanded - CTB supported the expansion of the Childhood TB intervention package to the community level in Makoni District. The package includes establishing a childhood TB focal person at national level, development of childhood TB guidelines and a training package, capacity building for HCWs through training and on-site-mentorship, improving recording and reporting as well as strengthening community participation. A total of 298 CHWs were trained on TB prevention, transmission, treatment and recording and reporting. The training is expected to result in an increase of community referrals to health facilities of children that have presumptive TB. The immediate outcome of this intervention being implemented since Jan 2016 is encouraging with an observed increase in the proportion of children diagnosed with TB and the absolute numbers of children diagnosed. The number of children diagnosed increased from 7 (11.3%) out of 62 total cases notified from Oct-Dec 2015 to 14 (13.5%) out of 104 total cases notified from Jan-Mar 2016.

The NTP newsletter 'TB News' printed - CTB supported the development and printing of the first edition of the NTP newsletter titled 'TB News'. Two thousand five hundred copies have been printed and the distribution is still ongoing. The newsletters is also being distributed online and shared with partners and CTB country directors. In this publication, a spectrum of TB issues were shared including program implementation updates, community and media engagement, and highlights of upcoming events and courses. The newsletter will be published bi-annually and will be used as a platform for program information dissemination, health education and promotion, advocacy to mobilise domestic resources, as well as enhancing visibility of CTB as a USAID funding mechanism for TB in Zimbabwe.

The newsletter can be downloaded here:

http://www.challengetb.org/publications/Newsletter_Zimbabwe.pdf

TB recording and reporting incorporated into DHIS - The rollout of the District Health Information Software Version 2 (DHIS2) is progressing following the training sessions conducted in the second quarter. The districts have started entering health facility data backdating to January 2015. For the period of Jan-Mar 2016, 1,395/1,740 (80%) health facilities had entered their TB data from their quarterly reports into the software. The reporting rate is expected to significantly improve following procurement of 75 laptops for TB Coordinators to assist in data entry that will be distributed in the fourth quarter of CTB. As a result, the NTP and other stakeholders can now view and analyze data online down to primary health facility level. In addition, the electronic reporting system minimizes the risk of losing reports during transit and misfiling that was typical of the paper based system.

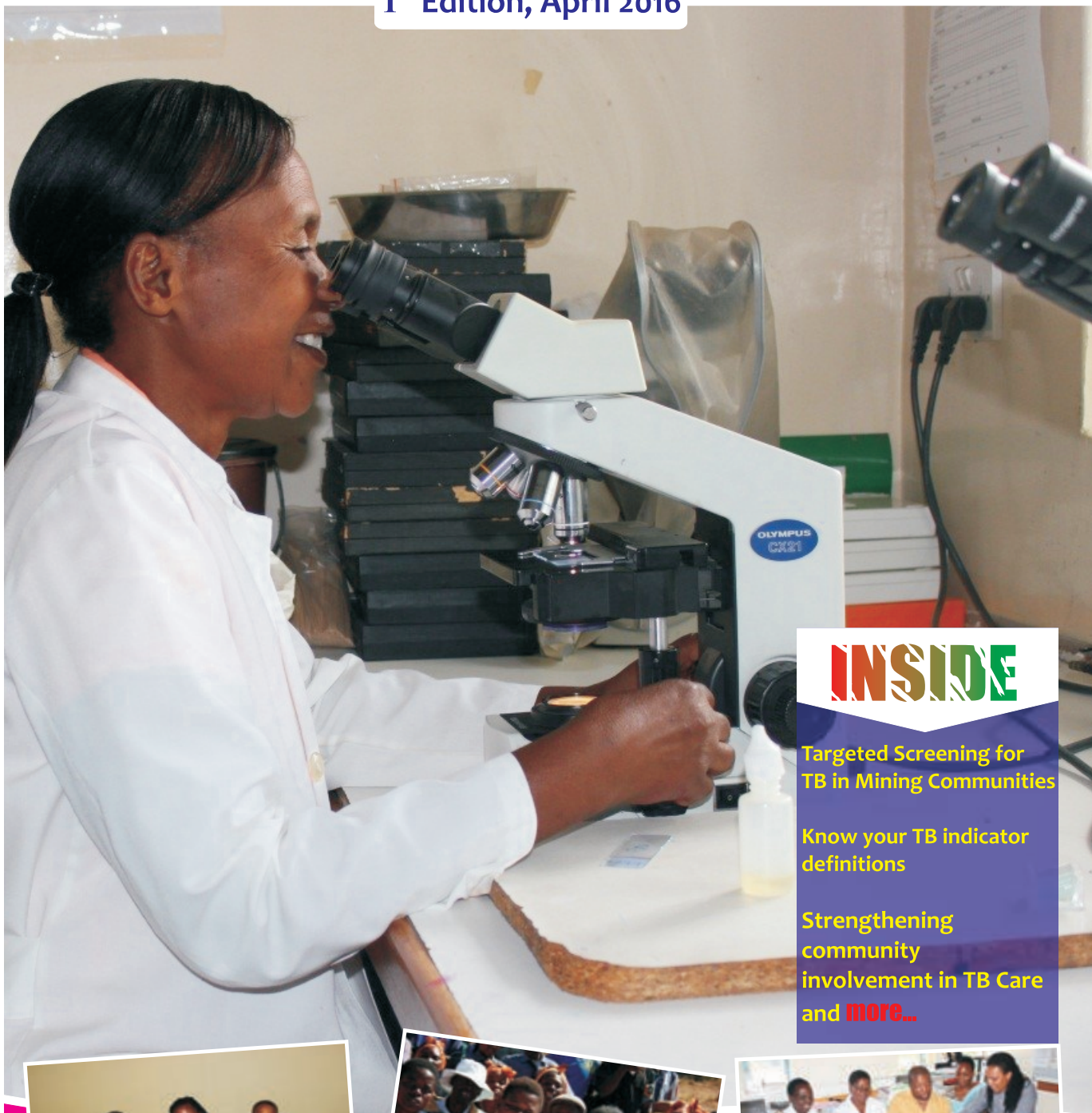
External review of NTP - CTB jointly with GF supported an external review of NTP that was successfully completed in June. The following were key findings where CTB has been investing:

- **TB Case Finding and Holding:** The country has made great progress with TB case finding and holding. There has been expansion of TB diagnostic and treatment services to near universal access, new diagnostic technologies including the Xpert MTB/Rif assay have been successfully introduced and scaled-up, a specimen transport system has been established and digital radiography introduced.
- **TB/HIV Collaborative Activities:** The delivery of TB/HIV services is closely linked with a one stop shop models being the norm. However, the review group noted uneven coverage of TB/HIV collaborative activities across districts and was concerned about the quality of implementation of IPT in several districts.
- **Programmatic Management of Drug Resistant TB:** Zimbabwe has made great progress since the PMDT was introduced in 2010. The diagnosis of DR-TB has expanded with the introduction of molecular tests and the treatment has been decentralized to the community level. There are no patients on a waiting list to initiate treatment with SLDs. With a TSR of 75%, the treatment outcomes for DR-TB in Zimbabwe are among the best in the world.
- **Monitoring and Evaluation/Operations and Implementation Research:** The Zimbabwe TB program has a robust TB recording and reporting system, which has recently been incorporated into the national DHIS2. However, the system is still paper based and thus prone to errors. There are still pockets of data challenges including the incompleteness and inconsistency of records.



TB News

1st Edition, April 2016



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The cover of the first edition of 'TB News', Zimbabwe



East Africa Region Project

CTB East Africa Region (EAR) Project is implemented by KNCV as the lead and with MSH and The Union as collaborating partners. It builds upon the successes of the previous TB CARE I regional projects while also leveraging those partnerships for greater reach and results. CTB-EAR technical focus areas include: cross-border TB control and cross-country collaboration for improved TB control and surveillance; supporting National TB reference laboratories; strengthening PMDT to improve access to second-line TB drugs including new drugs and shorter regimens and M/XDR-TB case-holding and palliative care; building capacity on childhood TB; and creating a regional training corridor by linking training institutions and earmarking them for specific trainings in TB. The project has three key sub-agreements with Supra National TB Reference Laboratory - Uganda (SNRL), the East, Central and Southern African Health Community (ECSA), and the Center of Excellence - Rwanda (CoE).

Cross-border activities accelerated - Fifty-nine health workers from 30 border health facilities and refugee camps in three Kenyan counties (Turkana, Garissa and Marsabit) were sensitized on the cross-border TB initiative. From the meetings the teams developed county-specific action plans identifying the TB-related issues that need to be addressed in-country (specifically at the border areas) and also those by the country on the other side of the border. To facilitate the cross border TB initiative, it was agreed that the TB coordinators from the counties will be included in the existing cross-border health committees. The next step will be to link the committees from the Kenyan sides with their counterparts in Ethiopia, Somalia, Uganda and South Sudan. This will establish communication channels amongst them and thus enhance case detection and the follow-up of the TB patients across the border.

A two-day East Africa and Horn of Africa Regional NTP Meeting was held in Apr 2016 with attendance of NTP managers and M&E focal persons from Kenya, Uganda, Somaliland, Somalia and South Sudan. Stakeholders from the United Nations High Commissioner for Refugees, the International Organization for Migration, WHO Kenya, WHO Somalia, World Vision International, East Africa Community, USAID East Africa bureau and CTB PMU attended (25 participants in total). The NTPs of Tanzania and Ethiopia were not able to join the regional NTPs meeting in Nairobi. The goal of the workshop was to introduce the NTPs of East Africa and the Horn of Africa to the CTB EAR regional project, project strategic approaches and results to date. During the meeting the participants reviewed the project documents which included the inter-country referral tool and protocol, cross border initiative guide, regional coordination secretariat terms of reference and criteria for selection of the TB palliative care sites. The input of participants was consolidated and the tools have been finalized and are already in use.

Biosafety measures in laboratories ensured - The translation of the TB-IC SOPs into Somali was finalized based on the comments made by the Somali laboratory teams. To date, 500 copies of these SOPs have been printed, and dissemination is planned for the next quarter. It is expected that the utilization of the SOPs will enhance biosafety measures in the TB laboratories. The project team will collaborate with SNRL to provide TA to aid the implementation of the SOPs in Somalia.

Qualified staff available and supportive supervisory systems in place - An inventory of existing and potential training institutions for the training corridor in the region has been developed by the CTB EAR team. In addition to adding other training institutions onto this inventory, TB experts in the region that can offer TB-related training will also be identified and placed in the directory. In the next quarter, the training institutions will be contacted to begin discussions on how they can be integrated in the formation of the Regional Training Corridor for TB and the courses that they will offer.

The Rwanda based Center of Excellence (CoE) conducted its 7th international training on PMDT in May. During this training a total of 20 participants from six countries (Kenya, Ethiopia, Rwanda, Nigeria, Tanzania and South Sudan) attended. There was a remarkable improvement in terms of the number of participants sponsoring themselves with 10 participants (50%) paying for the course, compared to the previous one where all of the participants' costs were covered by organizers. Of the 20 participants 11 were international (55%) while the remaining nine were local. The CoE is therefore on the track to financial sustainability, which is an important achievement in its PMDT training role. CTB selected and contracted a consultancy firm (Blue Edge Marketing consultants) to develop a business plan for the CoE that is in line with its objectives to become a regional center of excellence. Blue Edge has developed the study plan and study tools for the development of the business plan. The business plan will be ready during the next quarter. A dissemination workshop is proposed during the next quarter.

Core Projects

CTB is working on seven priority projects that have implications for TB prevention and control globally. Achievements from the GF Hub are captured on page 8. Progress and achievements from April-June 2016 are summarized below for the six other core projects.

Bedaquiline Introduction

The BDQ core coordination project is supporting the introduction of BDQ in CTB countries. This quarter, a workshop for CTB country teams on the introduction of new drugs and regimens (ND&Rs) was conducted in June 2016 prior to the Country Directors' meeting in The Hague. The workshop aimed to strengthen capacity within global, regional and country level CTB offices to support countries' rapid introduction of ND&Rs for the DR-TB, with a focus on the shorter 9-12 month regimens and BDQ containing regimens. With representatives from 14 CTB country projects (in-country PMDT/Technical Officers and/or Country Directors), USAID, KNCV, ATS, MSH, The Union and WHO, the workshop also allowed for immediate work planning for current Year 2 implementation and the CTB Year 3 planning cycle.

A core-funded work plan supporting BDQ introduction in Kazakhstan was approved in June and is to be completed by the end of September 2016. The project will undertake an assessment of the M/XDR-TB situation to define the needs for national rollout of ND&Rs in the country, and support a workshop to develop a national action plan on the rollout of ND&Rs.

Progress in countries since the project approval:

- **Vietnam:** Treatment of patients with BDQ started in December 2015. As of June 2016, a total of 44 pre-/XDR-TB patients in three pilot provinces have been enrolled on a BDQ-containing treatment regimen. In addition, since April 2016, the shorter (9-month) regimen was introduced in the same three sites with 68 patients enrolled as of June 2016.
- **India:** The NTP published its implementation guidelines for the use of BDQ in February 2016. The drug will be available under a conditional access program at six identified pilot sites across the country. This rollout is being facilitated by CTB with additional staff being hired at the pilot sites to coordinate the enrollment of patients, counseling, monitoring adherence and PV. TA and the facilitation of review meetings and training activities are also supported. The first patients were enrolled on treatment at Guwahati, Assam, and Chennai, Tamil Nadu in June. The remaining sites are expected to initiate the patients by September. The initial 600 patient courses of BDQ have been directly donated by Janssen to the Government of India. Initial discussions in regard to the introduction of the shorter regimens in India are ongoing at the national level.
- **Ethiopia:** CTB hosted a 2-day consultative workshop in May at which the "National implementation plan for the introduction of new and repurposed drugs" and the "Clinical and programmatic guide for new and repurposed drugs" were finalized. Selection and preparation of the pilot sites, and other necessary preparatory activities are ongoing. To date, the NTP has started two pre-XDR TB patients on BDQ containing regimens (in collaboration with Partners in Health). Enrollment at the two pilot sites is planned to start in the coming months.
- **Indonesia:** Between Oct 2015 (when BDQ treatment started) and Jun 2016, 37 patients have been enrolled on BDQ-containing regimens.
- **Bangladesh:** To date, 18 patients have been enrolled on BDQ containing regimens (under the end TB Project).
- **Ukraine:** All the critical steps for the introduction of BDQ have been completed. Final discussions on the design of the shorter regimen will be held in July and the clinical guidelines should be endorsed in the near future. The expected enrollment date of the first patients on BDQ-containing regimens is Nov 2016.
- **Tajikistan:** Optimized diagnostic algorithms and clinical protocols for the treatment of non-complicated MDR-TB cases and pre-/XDR-TB patients with ND&Rs have been developed, translated into Russian, and await finalization. To date, 15 XDR-TB patients have been enrolled on BDQ-containing regimens with the support of MSF. CTB patient enrollment is planned between Oct-Dec 2016.
- **Kyrgyzstan:** All critical steps for the introduction of BDQ have been completed with the enrollment of the first patients on BDQ-containing regimens expected in November 2016. The delay in enrollment is related to the delivery of the BDQ, companion drugs, and drugs for the side effects, which will now only arrive in Nov 2016.
- **Nigeria:** In August 2016, CTB TA is planned to assist the NTP in the development of an introduction plan for ND&R and the country-specific adaptation of the CTB generic programmatic and clinical guide. Enrollment of the first patients on ND&Rs is expected to start in Jan 2017.
- **Botswana:** TA is proposed for Aug/Sep 2016 to assist the NTP in development of its introduction plan for ND&R and the country-specific programmatic and clinical guide.

Stigma

The Stigma Project aims to develop valid, feasible and efficient methods to measure TB stigma within the community, patient and health worker populations. In May 2016, two meetings on TB Stigma were held in The Hague. They were held consecutively to make the best use of time for a diverse group of people whose expertise was primarily in the area of TB Stigma and general stigma measurement. The meetings galvanized academic, policy, and practitioner support for improved measurement and intervention on TB stigma. The meetings were able to leverage expertise outside the TB community to help strengthen the quality of the Social Science - avoiding some pitfalls of prior stigma measurement efforts and finding synergies with other non-TB measurement initiatives.

The preliminary results of six new studies on TB stigma measurement methods were presented: two literature reviews, two Demographic Health Survey (DHS)/Service Provision Assessment (SPA) secondary data analyses, a scale validation in HCWs, and a scale validation in presumptive TB patients. Collectively, these studies represent a significant advancement in the TB measurement field—answering some basic questions that set the stage for correct measurement tools and methods in future. In addition, a TB Stigma Research Agenda was developed which lays out a framework for future efforts.

The stigma work is transitioning to countries with many (Bangladesh, Burma, Ukraine, Zimbabwe, Indonesia and Mozambique) proposing stigma measurement-related work as a part of their Year 3 work plans. Other countries such as Nigeria are using the TB stigma tools in work funded through other mechanisms.

UN Special Envoy for Tuberculosis

The goal of the UN Special Envoy (UNSE) for Tuberculosis, Dr. Eric Goosby, is to promote and garner high level support for the dissemination and implementation of the global End TB Strategy and its targets for TB prevention, care and control. As a technical and political advisor to the anti-microbial resistance (AMR) review team, the UN Special Envoy provided commentary on each of the last four AMR agenda documents, which resulted in strong TB-language in the final document and commitment from the AMR team to TB that has played out in their public and private statements about AMR.

In May 2016 Dr Goosby visited Nigeria and met with the First Lady of Nigeria, Mrs. Aisha Muhammadu Buhari, the Minister for Health, Prof. Isaac Adewole, representatives from four key states that are covered by CTB (Vice Governor, Health Commissioner, Assemblymen), and chairs of the National Assembly committees on Health. Since the trip to Nigeria, the project team has remained engaged with the Minister of Health through a follow-up meeting in New York.

The UNSE played a key role in the UN High Level Meeting on HIV/AIDS, which resulted in strong language on TB/HIV co-infection in the Political Declaration on HIV and AIDS. The declaration called for a 75% reduction in TB/HIV co-infection and an additional statement supporting accelerated funding and targeting of services for key populations. This was largely viewed as a success though it must be followed closely in the future to ensure that key stakeholders engage in the planning to ensure that programmatic integration of TB moves quickly.

Dr. Goosby met with the head of the United Nations Children's Fund (UNICEF), Tony Lake, in June to ask the agency to integrate TB into all health programs and emphasize the need to engage on TB in country/regional offices. The meeting served to raise the profile of TB as a problem for children. Mr. Lake promised to review the ways in which TB could be better integrated.

Catastrophic Costs

One of the targets of the End TB Strategy is that no TB patient nor their household should face catastrophic costs due to TB, and this target should be achieved by 2020. To monitor progress towards this target, countries will need to measure the occurrence of catastrophic costs as part of the package of investigations required to better describe local and national TB epidemiology, health seeking, and health and social care systems bottlenecks. This project is field testing a generic protocol and instrument for national TB patient costs surveys to identify patient and health system predictors and the reasons for catastrophic costs in order to guide policies on cost mitigation. In addition, the project aims to determine the baseline and periodically measure the percentage of TB patients treated in the NTP network (and their households) in the country who incur catastrophic (direct and indirect) costs.

The establishment of a global catastrophic cost baseline assessment started in 2015-16 and will accelerate from 2017-2020. This project is supporting field testing in Vietnam while similar field testing takes place in Ghana, Mongolia, Burma, the

Philippines, the Solomon Islands and Timor-Leste (not CTB-funded). At the end of 2016 a data review and protocol revision is planned (provided funding is available).

This quarter, the project provided support to the NTP in Vietnam to adapt the generic protocol. Ethical approval was provided by the national ethical review committee as well as from WHO's regional office. Following a kick-off meeting, piloting took place in Hanoi (not part of the survey sample) at a district health facility and involved MDR-TB patients and drug-susceptible TB patients in the intensive and continuation phase. Local data managers were trained on the web survey software. Testing of the e-survey instrument, training of interviewers, and data collection will start in July.

Prevention

The core-funded project is a randomized, pragmatic, open-label trial to evaluate the effectiveness of three months of high dose Rifapentine and Isoniazid (3HP) administered as a once-weekly dose (12 weekly doses) against a regular six month IPT course; the study also compares the effectiveness (pragmatic trial) of one course of 3HP to a pulsed annual repeat course of 3HP. This quarter, USAID approved KNCV's sub-agreement with the Aurum Institute and the Witwatersrand University Institutional Review Board (South Africa) approved the study protocol. The protocol was submitted to the Medicines Control Council for regulatory approval and to London School of Hygiene & Tropical Medicine for ethics approval. Both approvals are currently awaited.

The data safety monitoring board has been established and the start of enrollment is being prepared through the development of SOPs and case report forms. A contract research organization for study monitoring was selected through a tender process by the Aurum Institute. Clinical trial sites in South Africa, Mozambique, and Ethiopia were also selected by the Aurum Institute (through a transparent process). The clinical trial insurer was selected and the policy is in the process of being finalized. In addition, a draft Gantt chart indicating project activities and the necessary schedule was developed, and will be finalized in August.

Short project in Papua New Guinea

CTB has started the new project in Papua New Guinea (PNG) to be implemented from Jun-Sep 2016. The CTB-PNG project has two overarching aims: (1) To improve treatment outcomes for drug resistant TB by strengthening treatment regimens using new drugs and by strengthening technical capacity at different levels of the health system to support patients, especially those on new drug regimens, and (2) To improve case detection for TB/Rifampicin-resistant TB on Daru Island using GeneXpert rapid diagnosis. The CTB-PNG project will develop a model for capacity building that can be implemented in both rural and urban settings.

The concept is to develop interventions and build capacity at each level of the health system, comprising health care providers and the community, with the goal to implement a comprehensive patient-centered approach. The main focus will be on complex drug-resistant TB patients receiving new drug regimens, but these principles can also be adopted for PMDT and for drug-susceptible TB patients.



Evaluation of a child during an MDR-TB supportive supervision visit, Tanzania (Photo: Viocena Mlaki)

New Publications

Strategic Framework for Cross- Border and Regional Programming in TB Prevention and Control for ECSA-HC (TB CARE I)

This is a strategy on cross border & regional programming in TB prevention and control for the East, Central and Southern African Health Community (ECSA) region. It provides policy guidance for ECSA Member States to mitigate the impact of cross border TB.

http://www.challengetb.org/publications/tools/country/Strategy_for_Cross-Border_TB_Control_ECSA-HC.pdf

Regional Policy on the Management of MDR and XDR Tuberculosis Treatment Failures (TB CARE I)

This policy seeks to guide countries in the management of the challenges of MDR-TB and XDR-TB failures and to put in place strong systems that are able to address these challenges.

http://www.challengetb.org/publications/tools/country/Policy_on_Management_of_MXDRTB_Failures_ECSA.pdf

TB Competencies for Pre- Service Nurses in ECSA Region (TB CARE I)

The competencies included in this document provide details of the skills, knowledge and attitudes a nurse requires to manage TB patients, contacts and significant others. The competencies provide the detail of how a nurse is expected to practice TB nursing management. These competencies address the knowledge, ability, skills and attitudes a graduate nurse in the ECSA region needs to provide quality holistic care for patients, families, and communities impacted by TB.

http://www.challengetb.org/publications/tools/country/TB_Competencies_for_ESCA_Nurses.pdf

Competency Based TB Curriculum Outline for Pre-Service Nurses in the ECSA Region (TB CARE I)

This curriculum outline aims to integrate TB and DR-TB competencies into nursing curricula as to empower graduate nurses with the appropriate evidence based knowledge, skills and attitudes to manage TB and DT-TB effectively.

http://www.challengetb.org/publications/tools/country/TB_Curriculum_Outline_for_ECSA_Nurses.pdf



PMDT training participants compiling a field visit report after visiting Kibagabaga MDR-TB Center in Kigali, Rwanda (Photo: Charles Ogolla)



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

Design & layout - Tristan Bayly

Back cover photo - Respondents of the knowledge, attitude, practice & behavior survey in Makoni district, Zimbabwe (Credit: Paidamoyo Magaya)

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E-mail pmu@challengetb.org
Website www.challengetb.org
Twitter [@challengetb](https://twitter.com/challengetb)

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