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**TB CARE I**

# **South Sudan**

**Year 1**

**Annual Report**

**October 1, 2010 – September 30, 2011**

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## List of Abbreviations

ACF	Allocable Cost Factor
AFB	Acid Fast Bacilli
APA	Annual Plan of Action
ATS	American Thoracic Society
CRL	Central Reference Laboratory
DOTs	Direct Observe Treatment Short Course
FHI360	Family Health International
GF	Global Fund
JATA	Japan Anti-Tuberculosis Association
KNVC	KNCV Tuberculosis Foundation
MDR-TB	Multi-drug Resistant Tuberculosis
MOST	Management & Organizational Sustainability Tool
MSH	Management Sciences for Health
NTP	National TB Program
PCT	Patient Centered Treatment
PHC	Primary Health Care
PHCC	Primary Health Care Center
PICT	Provider Initiated Counseling and Testing
SOPs	Standard Operating Procedures
TB CAP	Tuberculosis Control Assistance Program
TOT	Training of Trainers
USAID	United State Agencies for International Development
WHO	World Health Organization
TBMU	Tuberculosis Management Unit
BHP	Basic Health Package
HSS	Health Systems Strengthening

## Executive Summary

TB CARE I is designed to build on the successes and lessons learned of the Tuberculosis Control Assistance Program (TB CAP) which was implemented from 2005 – 2010. Initially TB CAP was implemented by WHO as a lead partner and later on Management Sciences for Health. TB CARE I is a five year cooperative agreement that has been awarded to KNCV with MSH as a lead partner in South Sudan. The project runs from 2010 – 2015.

The implementation started in March 2011 after the recruitment of the Country Director and the activities were accelerated after the approval of the APA 1 workplan in May 2011. The total buy-in is 896,000 USD for year 1.

In South Sudan TB CARE I is implemented by three partners namely Management Sciences for Health, (lead partner), KNCV Tuberculosis Foundation and WHO (collaborating partners). The project consists of the Country Director and the Project Admin Coordinator under MSH. KNCV Tuberculosis Foundation does not have representation in the country and provides technical assistance in collaboration with MSH. WHO has a country office and the TB medical officer is part of the Country project coordinating team.

TB CARE I has been designed not only to strengthen the existing system but also to implement new approaches and scale-up TB interventions identified in the NTP strategic plan. The development of TB CARE I APA 1 plan is based on a critical analysis of the current TB situation in South Sudan, achievements and challenges. The aim is to identify gaps in implementation of the TB strategic plan. Although a large part of the NTP plan is funded through Global Fund, TB CARE I plan would be 'catalytic' in nature by ensuring that the NTP has the capacity and necessary tools to implement and utilize the available resources. TB CARE I is also designed to provide high quality technical assistance to ensure that TB control efforts are effective and meet international standards. TB CARE I APA 1 focused on four technical areas; 1) Universal and Early access of TB Treatment; 2) Strengthening of Laboratory Services; 3) Health System Strengthening 4) Collaborative TB/HIV activities;

1. **Universal and Early Access of TB Treatment:** In the first year TB CARE I has improved the capacity of health workers to diagnose and treat TB. The quality of TB services was improved through training of clinicians, nurses and laboratory staff. In total, 80 health workers were trained during the reporting period. In addition TB CARE I supported NTP in the development of 3 policy documents: SOPs to improve case detection at health facilities, the 2<sup>nd</sup> NTP strategic plan through the revision of strategic plan 2009 – 2013 and the first NTP Annual Report.
2. Patient Centered Treatment Approach guidelines have not been developed. WHO is currently hiring the consultant to conduct this activity. TB CARE I also supported NTP to convene the first NTP review meeting involving the state TB coordinators and State HIV directors to review the progress of each state and share information and lessons learned.
3. **Strengthening of Laboratory Services:** TB CARE I has worked very closely with NTP to identify facilities that required support to improve TB diagnosis in an integrated approach. Renovation works are on-going in 1 laboratory earmarked for major renovation. Once complete it will strengthen general laboratory services and provide quality TB diagnostic services in an integrated approach. Laboratory workers have been trained. In APA I, 18 (all males) laboratory technicians were trained on TB sputum smear microscopy from 27<sup>th</sup> – 1<sup>st</sup> July 2011. In addition, the training manuals were developed and will be field tested in APA2 before final manuals are produced. The SOPs on Biosafety in the Central Reference Laboratory (CRL) and peripheral laboratories were

developed. The draft forms will be finalized, printed and distributed. The equipment for the TB CRL have been procured and delivered but they have not been installed. A TOT for lab supervisors will be conducted in the period Oct – Dec 2011.

- 4. Health System Strengthening:** TB CARE I supported NTP to develop the assessment tool to identify facilities which can integrate TB services into PHC. The tool has been sent out to partners implementing PHC, and out of 21 that have responded ten have been identified as potential facilities which can integrate TB services. The response from partners is slow but TB CARE I will support NTP to explore the possibility of using the health and NGO forums to reach most of the partners implementing PHC. Two out of three PHC\C that were identified for minor refurbishment in APA 1 are undergoing renovation and the health workers have been trained on TB diagnosis and management. A framework for integrating TB services was developed and this will provide minimum standards for integrating TB services. In preparation for the integration of TB laboratory services in the PHCC, 20 (1 female and 19 males) laboratory staff were trained on sputum smear microscopy. The training was conducted from 6<sup>th</sup> – 9<sup>th</sup> September 2011.
- 5. Collaborative TB/HIV activities:** To improve management & leadership skills of TB program managers a three days workshop on MOST for TB/HIV was conducted (30<sup>th</sup> August – 1<sup>st</sup> September 2011). Twenty six (3 females and 23 males) including 3 facilitators participated in the workshop. A follow up workshop has been planned for year two. TB CARE I supported NTP in coordinating the TB/HIV Technical Working Group meetings. This has helped coordination and collaboration among the partners. Some of the key issues that have been addressed during the meetings include review of TB screening tool, advocacy for management of MDR-TB in South Sudan and GF round 11 proposals.

## **Introduction**

The Republic of South Sudan separated from Sudan on July 9, 2011, and is now recognized as an independent nation after many years of civil war between forces in the south and the government of Sudan in Khartoum. Infrastructure in South Sudan was destroyed during the war. The country is facing many health system challenges including human resources, health infrastructure, low general health service coverage (25%) and health management system. As the Government of the Republic of South Sudan is embarking a massive program to strengthened health system through Basic Health Package (BHP) and other initiatives such as Health System strengthening (HSS) as a mechanism to scale up TB services, it is an opportunity to utilize such an approach to integrate TB services into the general health system.

TB is a major cause of mortality and morbidity in South Sudan. The recent WHO estimates place the incidence of all forms of Tuberculosis to be 140 per 100,000, and 79 per 100,000 for smear positive cases, indicating that around 12,268 new persons develop the disease in South Sudan annually, out of which 6,923 are sputum smear positive and capable of transmitting the disease (Global TB WHO report 2009). The HIV co-infection among TB patients is 7.6% from the current sites of TB/HIV collaborative activities during 2009. At present, there are 42 TB management units (TBMUs) run by NGOs, WHO and the Government distributed in all the 10 States of South Sudan out of an estimated 121 TBMUs. In 2010, the total number of all forms of TB notified in South Sudan was 6,270 and the new sputum smear positive TB cases detected was 2,246 representing a case notification rate of 26 per 100,000 which could be attributed to the limited coverage of TB services. Coverage of TB services and case detection rate remains low at 48% and 34% respectively while the treatment success rate is 80%.

The first strategic plan to control TB in Southern Sudan was developed in 2009. The plan provided a framework for controlling TB in South Sudan with six strategic objectives in line with Government of Southern Sudan Health strategic plan and Stop TB strategy. As part of the strategic plan a HRD strategic plan for TB control was developed in line with the strategic plan for Human Resources for Health. The TB strategic plan highlighted key challenges facing TB control efforts, including: low DOTS coverage, an inadequate number of health staff at all levels, a limited laboratory network including lack of a reference laboratory, inadequate community involvement in TB, inadequate implementation of TB/HIV activities, limited integration of TB activities into PHC and the general health system.

In 2010, USAID awarded TB CARE I to the Tuberculosis Coalition of Technical Assistance (TBCTA). MSH is a coordinating partner in South Sudan. Other TBCTA partners working in South Sudan include the World Health Organization (WHO) and KNCV. The TB CARE I plan aims at strengthening the capacity of the NTP to coordinate all TB control efforts in South Sudan. TB CARE I builds on the successes and lessons learned in the implementation of the TB Control Assistance Program (TB CAP) project 2005-2010 and has been designed not only to strengthen the existing system, but to also implement new approaches and scale-up TB interventions identified in the NTP strategic plan. The plan focuses on four major priority areas; 1) Universal and early access of TB treatment; 2) Strengthening of laboratory services; 3) Health system strengthening; 4) Collaborative TB/HIV activities. The need for a smooth transition from TB CAP to the TB CARE I mechanism, calls for well coordinated efforts from coalition partners implementing the TB CARE I project in South Sudan. This entails having skilled and experienced personnel in TB CARE I to build on the challenges and lessons learned during implementation of TB CAP.

## Universal Access

### Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Base line	Target Y1	Result Y1	Comments
<b>1.1</b>	Increased Case Detection	Percent of the estimated number of new smear-positive pulmonary TB cases that were detected under DOTS (TB Case Detection Rate)	The percentage of new smear positive TB cases detected (diagnosed and reported to the national authorities) among the total number of TB cases estimated to occur countrywide each year	34	42		The data from NTP for the period Jul- Oct 2011 is not available until end of October 2011.
<b>1.2</b>	Improved quality of TB services	Number of improvements to laws, policies, regulations or guidelines related to the TB program	Number of improvements to law, policies, regulations or guidelines related to improving access to and use of TB health services drafted with USG support	0	3	3	The documents include; SOPs for improving case detection, NTP strategic plan, and annual report. The documents will be printed and disseminated during training and stakeholder meetings.
<b>1.3</b>	Improved quality of TB services	Number of people trained in DOTS with USG funding disaggregated by gender	Number of people (medical personnel, laboratory technicians, primary health workers, community-based health workers etc) trained in the components of the DOTs strategy	0	99 (F:33,M:66)	78 (F:14,M:64)	Under achievement because two trainings have not been conducted due to competing priorities within NTP. Gender representation remains a challenge because of imbalance in

							Human resources in the health system where we have few trained female workforce.
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### Key Achievements

- Development of SOPs to improve on case detection at health facilities. The SOPs will be piloted in collaboration with NTP in few facilities and lessons learned will be used to scale up the use of the SOPs.
- Supporting NTP with Global Fund (GF) TB Round 11 proposal development. The draft objectives, SDA and activities have been developed and building up process will continue in the APA 2 workplan.
- TB CARE I supported NTP drug focal person, and TB CARE I country lead to attend the 1<sup>st</sup> regional conference on TB management in South Africa.

### Challenges and Next Steps

- Piloting of the SOPs has delayed because of competing priorities in the NTP. NTP has identified a focal person who will spearhead the piloting of the SOPs with the support of TB CARE I. SOPs have been integrated in the TB/HIV trainings that have been supported by TB CARE I.
- Delay in the development of the PCT guideline. The recruitment of the consultant is on-going and the activity has been carried forward to APA2.
- Delay in implementation of some trainings included in the APA I – PICT and TOT for lab supervisors – the trainings will be conducted in Oct – Dec 2011 as activities carried over from APA 1.
- Health system is facing human resources challenges especially with few women in the workforce. Women with minimum qualification will be encouraged to attend the trainings.



Figure 1: NTP training officer facilitating a session on TB management during the Clinicians and nurses training in Torit



Figure 2: Group work during the training for TB management for clinician in Torit



Figure 3: Participants for the 1<sup>st</sup> Quarterly review meeting facilitated by MSH, TB regional advisor during the opening ceremony by the Undersecretary MOH



Figure 4: HIV director from Western Barhar Gazal State presenting the state workplan

## Laboratories

### Technical Outcomes

Expected Outcomes	Outcome Indicators	Indicator Definition	Baseline	Target	Result	Comments	
				Y1	Y1		
2.1	Increased access to TB diagnosis	Laboratory coverage (AFB microscopy labs)	Number of AFB microscopy labs divided by the population times 100,000	208,656	182,574	134,815	NTP through other grants has increased TB diagnostic centers from 42 to 65

## Key Achievements

- Draft of the SOPs for the Biosafety for the CRL and peripheral laboratory
- Drafts of the Training manuals for the laboratory staff on sputum smear microscopy
- Training of 20 (1 female and 19 males) laboratory staff on sputum smear microscopy. The training was conducted between 6<sup>th</sup> – 9<sup>th</sup> September 2011
- Refurbishment of 1 state laboratory to integrate TB/HIV diagnosis is on-going.

## Challenges and next steps

- Due to short timeframe between the approval of the workplan and end of APA1, the achievement above could not be finalized within the timeframe. Field testing, finalization, printing and dissemination will be carried over to the coming quarter.
- Competing priorities and short timeframe affected TOT training for lab supervisors. The training has been carried over to Oct – Dec 2011.
- Slow progress towards installation of equipments may result in delay functioning of the CRL and therefore field testing of the SOPs for Biosafety at CRL.
- One of the facilities that had been identified for refurbishment was not accessible in the reporting period. Another facility has been substituted and refurbishment will commence in Q1 2011.

## TB/HIV

### Technical Outcomes

Expected Outcomes	Outcome Indicators	Indicator Definition	Baseline	Target	Result	Comments
				Y1	Y1	
5.1 Improved collaborative TB/HIV activities	HIV testing among TB patients	Percentage of all registered TB patients who are tested for HIV		80	48	Includes data only from Oct 2010 – June 2011

## Key Achievements

- Workshop for 23 management staff from NTP and HIV directorate at central and state level on Management and Organizational Sustainability Tool (MOST for TB/HIV)
- TWG meetings were held during the quarter and important decisions were made which have resulted in targeted interventions for the areas identified. The meeting reviewed the TB screening tool for HIV positive person and updated the SOPs for identifying a TB suspect among PLWH.
- TB CARE I supported quarterly review meeting for the state TB and HIV coordinators from the 10 states. The meeting has improved collaboration between TB and HIV programs at state level. NTP is now able to organize for these meeting with support from other grants (GF).

## Challenges and Next Steps

- Training for the health workers on PICT has delayed due to limited timeframe. The training has been carried over to Q1 2011.



Figure 5: Deputy to the NTP manager giving a presentation during the TWG meeting on TB screening tool



Figure 6: NTP manager discussing a point during one of the TWG meetings

## Health System Strengthening (HSS)

### Technical Outcomes

Expected Outcomes	Outcome Indicators	Indicator Definition	Baseline	Target	Result	Comments
				Y1	Y1	
6.1 Integrated TB services	Integrating TB services into PHC	Number of Primary Health Care Centres (PHCC) providing TB services among 204 PHCC	42	46	43	2 labs at PHCC in addition to the one under renovation at the state hospital are under refurbishment. The works will commence in the 3 <sup>rd</sup> PHCC in Oct – Dec 2011 as carry over activity.

### Key Achievements

- Refurbishment of 2 peripheral laboratories at the PHCC level is on-going and once complete will be able to offer integrated TB laboratory services.
- Training of 20 (1 female and 19 males) laboratory staff on sputum smear microscopy, in preparation for the integration of TB laboratory services in the PHCC.

### Challenges and Next Steps

- Despite short timeframe for implementing activities, efforts have been made and 2 facilities undergoing refurbishment will be able to offer integrated TB/HIV lab services in the coming quarter (Oct – Dec 2011).
- Accessibility to one of this facility was practically impossible due to the rains and NTP has provided another facility which will substitute this one.



Figure 7: Field trip to assess PHCC for integrating TB services into PHC



Figure 8: State TB coordinator, County Public Health officer Magwi County, TB CARE I country lead and NTP training officer on an assessment of facilities in Magwi County, Eastern Equatoria State.