TB CARE I Success Story

Cambodia developed guidelines for the management of childhood TB in 2008 which are aimed at strengthening case finding, diagnosis and the treatment of childhood TB. Although the guidelines contain provisions for contact screening and management, they have seldom been implemented thus far. TB CARE I Cambodia has been supporting the NTP in the implementation of the guidelines in nine operational districts (OD) with a total population of 2.3 million. The main activities of the childhood TB initiative are: an orientation workshop, guideline/Tuberculin skin testing (TST) training, contact tracing by health centers and Community DOTS partners, referral of TB contacts (children), diagnosis, treatment and supervision.

Preah Net Preah, a poor and remote district with a population of 141,000 in Bantey Meanchey province, is one of the ODs where TB CARE I is implementing the childhood TB project. People usually travel from their villages to nearby health centers for their primary health needs or go to Preah Net Preah district hospital if they need hospitalization. With the support of TB CARE I in June 2011, 19 district hospital staff were given training in TST, they were also supplied with the necessary supplies such as tuberculin and x-ray films to perform a full diagnostic work up for the diagnosis of childhood TB according to the NTP guidelines.

Health centers and community-based DOTS (CB-DOTS) workers in Preah Net Preah OD conduct home visits of registered TB patients to identify and refer children with TB symptoms to the district hospital on the pre-appointed day.

At the district hospital, the referred children are evaluated by TB physicians according to the NTP guidelines which include history of contact with index TB cases, symptoms, clinical

Childhood TB Gets Much Needed Attention

examination, x-ray examination and tuberculin skin testing if deemed necessary.

In the months of July and August 2011 when full implementation began, 740 children suspected of having TB were referred to the district hospital for TB diagnosis. Of these, 212 children were diagnosed (28.6%) with having TB. In comparison, during the previous quarter, 80 children were evaluated for TB out of which 24 (30%) were diagnosed with TB. Although a similar ratio of children were diagnosed with TB, TB CARE's efforts have led to a nine-fold increase in the detection of children with TB.

The children's parents/care-givers expressed their happiness with the availability of TB services in the district hospital, which is near to their village. In the past, they had to go to the provincial referral hospital, which is much further away and meant they had to spend more money on both transport and accommodation.

There are some lessons learnt from the pilot implementation of childhood TB. Firstly, contact tracing plays an important role in case finding of TB among TB contact children. Collaboration with CB-DOTS partners and health centers in the referral of children is needed so that the children can reach the hospital. Scheduling a pre-appointed time at the district referral hospital allows TB physicians to book their time at the TB facilities on appointment days meaning patients are seen by the doctor they have been referred to and waiting times are kept to a minimum. It also frees up time for TB physicians to undertake other duties, and by grouping patients on a particular day, it reduces tuberculin wastage which is supplied in 10-15 dose vials which must be used within 24 hours of opening.



A health worker administering a tuberculin skin test to a child suspected of having TB

TB CARE I - Year 1 Tools

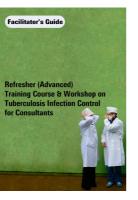
Website for Step-wise approach to TB Lab Accreditation



The Global Laboratory Initiative (GLI) has developed a Stepwise Process towards TB Laboratory Accreditation to assist national level tuberculosis diagnostic laboratories implement a quality management system which meets international standards. This guide translates the requirements of the ISO 15189 international standard into step-by-step activities, structures them in an interactive roadmap and provides many user-modifiable support materials such as document templates, software and information. For more information visit: http://www.gliguality.org

Rapid Implementation of the Xpert MTB/RIF diagnostic test - Technical and Operational 'How-to' Practical considerations

The development of the Xpert MTB/RIF assay for the GeneXpert platform was completed in 2009 and is considered an important breakthrough in the fight against TB. For the first time, a molecular test is simple and robust enough to be introduced outside conventional laboratory settings. Xpert MTB/RIF detects M. tuberculosis as well as rifampicin resistance-conferring mutations using three specific primers and five unique molecular probes to ensure a high degree of specificity The assay provides results directly from sputum in less than 2 hours. This new publication is designed to assist in the implementation and scale-up of Xpert MTB/RIF systems.



Facilitator Guide - Refresher (Advanced) Training Course & Workshop on TB-IC for Consultants

This guide is meant for trainers and facilitators involved in the "Refresher Advanced Training Course and Workshop on Tuberculosis Infection Control for Consultants". It is accompanied by reading materials, tools, reference articles and slides. It aims facilitate the training of up to 20 (inter) national TB Infection Control (TB-IC) consultants a number of which will be available to perform TB-IC missions with limited scope or independent missions within one year.

> The full Year 1 TB CARE I Annual Report will be available to download from the TB CARE I website:

http://www.tbcare1.org/reports/

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The Global Health Bureau, Office of Health, Infectious Disease and Nutrition (HIDN), US Agency for International Development, financially supports this newsletter through TB CARE I under the terms of Agreement No. AID-OAA-A-10-00020. This report is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of TB CARE I and do not necessarily reflect the views of USAID or the United States Government.





What is **TB CARE I**?

TB CARE I is a USAID five year cooperative agreement (2010-2015) that has been awarded to TBCTA (Tuberculosis Coalition for Technical Assistance) with KNCV Tuberculosis Foundation as the lead partner. TB CARE I is a unique coalition of the major international organizations in TB control:

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

TB CARE will contribute to three USAID target areas:

- Sustain or exceed 84% case detection rate and 87% treatment success rate
- Treat successfully 2.55 million new sputum-positive TB cases
- Diagnose and treat 57,200 new cases of MDR-TB

By focusing on eight priority technical areas

- Universal and Early Access
- Laboratories
- Infection Control (IC)
- Programmatic Management of Drug Resistant TB (PMDT)
- TB/HIV
- Health Systems Strengthening
- Monitoring & Evaluation (M&E), Operations Research (OR) and Surveillance
- Drug Supply and Management

And four over-arching elements:

- **C**ollaboration and Coordination
- Access to TB services for all people
- Responsible and Responsive Management Practices
- Evidence based M&E

TB CARE I - Year 1 Summary

Tuberculosis (TB) continues to be a significant public health issue worldwide. Although the absolute number of TB cases has been declining since 2006, there were still roughly 8.8 million incident cases of TB in 2010. USAID's repsonse to this global crisis, is the TB CARE program which is implemented by two coalitions, TB CARE I and TB CARE II. The strategy used is based on 1) Building on foundations to achieve new levels of success; 2) Using innovations to respond to USAID Missions and country needs; 3) Strengthening partnerships to achieve universal access and improve outcomes; and 4) Strengthening health systems to ensure sustainability.

TB CARE I began in October 2010 and the following is a summary of the program's contributions towards USAID's targets and expected outcomes, as well as results achieved in the first year of the project (October 2010-September 2011) through 26 core projects, three regional projects and 20 country.

TB CARE I contributes to three USAID target areas:

- Sustain or exceed 84% case detection rate and 87% treatment success rate
- · Successfully treat 2.55 million new sputumpositive TB cases
- Diagnose and treat 57,200 new cases of multidrug resistant TB (MDR-TB)

What follows is a summary of the baseline data for the five core TB CARE I indicators which are used to measure TB CARE I's contribution to these targets:

1) Number of Cases Notified (all forms and smear-positive cases) - In 2010, one million TB cases (all forms) were registered across all TB CARE I countries. Indonesia has the highest number of TB cases (300,659) and Dominican Republic reported the lowest number of TB cases (3,964). From the 2010 baseline, 466,009 new smear-positive TB cases were registered across all TB CARE I countries in the first year.

| Year 1 Report Summary | January 2011 |

2) Case Detection Rate (all forms) - The baseline average case detection rate (CDR) in 18 TB CARE I countries was 64% (2010). Whilst none of the countries have yet reached the targeted 84%, Kazakhstan, Kenya and Namibia have reached 82%.

3) Treatment Success Rate (TSR) of confirmed cases - The average treatment success rate across all TB CARE I countries is 88%. Rates ranged from 62% in Kazakhstan to 95% in Cambodia. There are still 12 countries which have not reached the 87% target. The median TSR is 85%, which better reflects the situation across TB CARE I countries than the mean (88%).

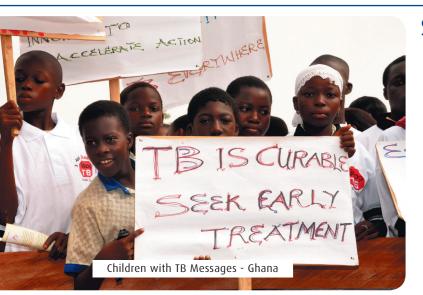
> 4) Number of new MDR-TB cases diagnosed and put on treatment - In 2010, before TB CARE I began, 11,241 MDR-TB cases were diagnosed. During the same year 7,912 MDR-TB cases were put on treatment. The majority of cases diagnosed (87.9%) and put on treatment (87.3%) are from Kazakhstan, Kyrgyzstan and Uzbekistan.

> > 5) Number (and percent) of confirmed TB cases among Health Care Workers (HCWs) Kazakhstan was the only ountry to report on TB occurrence among HCWs in 2010 (198 cases).

> > > FROM THE AMERICAN PEOPLE TB CARE I

Global Tuberculosis control is at a critical juncture. The need for a joint and dynamic approach has never been more urgent. The disease threatens the poorest and most marginalized groups, disrupts the social fabric of society, and undermines gains in economic development. The global resurgence of TB of the past few decades is being fueled by decreasing investments in public health systems, emerging drug resistance, and increasing HIV/ AIDS prevalence. New challenges such as TB/HIV and multi-drug resistant TB, call for innovative and strategic approaches and for more efficient and cost-effective TB programs.

TB Patient and her mother - Nigeria







South Sudan: TB CARE I supported the NTP in the development of an assessment tool to identify facilities which can integrate TB services into primary healthcare. Ten facilities have been identified for TB services integration. A framework for integrating TB services was developed which will dictate the minimum standards necessary for integration.

Nigeria: The use of Co-trimoxazole Preventive Therapy and Anti-Retroviral Therapy (ART) among TB/HIV co-infected patients has improved throughout Year 1. ART use among co-infected patients increased from 39% at baseline to 44% in Quarter 3 and 67% by the end of Quarter 4, surpassing the target of 60%. These improvements in TB/HIV indicators may in part be the result of several TB/HIV collaborative training activities.

Ghana: TB CARE I supported the NTP in piloting the use of the Rapid Data Quality Assessment tool. The piloting showed that data completeness on recording and reporting forms is a challenge as transcription errors from the treatment cards through to the national level data, result in the misclassification of TB patients. As a result, the NTP wants to implement a standardized data validation system.

Dominican Republic: In coordination with the NTP, visits were made to new pharmacies expanding the Public-Private Mix pharmacy model. To date, 105 TB suspects have been referred to DOTS facilities from participating pharmacies.

Zambia: TB CARE I provided technical and financial support for the finalization of the National TB Strategic Plan. Technical support was also provided on the country's strategy for scale up of advocacy, communication and social mobilization activities that will enhance the participation of many stakeholders in TB control.

Namibia: The project worked closely with the NTP to help develop, finalize and disseminate the NTP Monitoring and Evaluation plan. The SOPs for quarterly TB data review meetings were developed and have been shared with all regions to maximize data quality and utility of the meetings.

> **Botswana:** TB CARE I facilitated the development of action plans for TB-IC, Programmatic Manangement of Drug Resistant TB, Community Base DOTS and TB/HIV, which were followed by the development of a draft National TB Strategic Plan for 2012-2016.

Zimbabwe: The draft Drug Resistance Survey protocol was prepared by TB CARE I and submitted to the NTP. The data collected between January-September 2011 indicates that 1% of sputum positive pulmonary TB patients have Drug Resistant TB (25/2,463).

& Evaluation reports (55%) met the quality criteria, an improvement over the target of 25%.

Djibouti: Treatment guidelines for retreatment and MDR-TB cases have been developed along with a diagnostic algorithm for TB and MDR-TB.

TB Patients - Nigeria

Uzbekistan: A TB-IC (TB Infection Control) assessment was conducted in TB facilities in four sites. Proposals included: Finalizing and updating the legislative basis for TB-IC according to international recommendations, developing a budgeted TB-IC Activity Plan, implementing rapid diagnostic tests (GeneXpert), and organizing the surveillance of TB incidence among Healthcare Workers.

Kazakhstan: Draft laboratory guidelines, a laboratory plan and Standard Operating Procedures on laboratory maintenance have been developed.

> **Kyrgyzstan:** A joint assessment mission on different aspects of TB control in civic and prison TB services (TB in prisons, Programmatic Manangement of Drug Resistant TB, TB in children, TB in migrants, TB/HIV, TB-IC, patient support system and Human Resources) was conducted. Results are providing guidance to the NTP and informing TB CARE I Year 2 activities.

Afghanistan: TB-IC measures were extended to an additional 15 public health facilities in Year 1, four in Kabul city and 11 in the provinces. In these facilities, TB-IC committees were established, TB-IC focal points were identified and health facility staff assisted in developing a TB-IC plan and integrating it into the facilities general Infection Prevention plan.

> Pakistan: As of the end of Year 1, 42 additional clusters of the TB Prevalence Survey have been done (76 in total), leaving only 16 more clusters needing to be completed. The Prevalence Survey is on track to be completed by the end of March 2012.

> > Vietnam: Three TB-IC training courses for TB and HIV staff in three provinces were conducted in July 2011. TB-IC assessments were conducted in 50 DOTS Treatment Units and HIV clinics.

Cambodia: The uptake of HIV testing among TB patients continued to increase and reached 81% during the first two quarters covered by the NTP report (Jan-June 2011), exceeding the target of >80% for 2011. This is a significant increase from 13% in 2006 (when the initiative began) and 70% in 2009.

Indonesia: By the end of Year 1, a total of 1,585 MDR-TB suspects were identified, 471 confirmed MDR-TB cases were diagnosed and 332 MDR-TB patients were put on treatment. 137 patients received support for side-effect management between April and September 2011. Home visits and counseling were conducted for more than 220 cases to ensure uninterrupted treatment.

Ethiopia: A total of 100 MDR-TB patients were put on treatment, bringing the total number of MDR-TB patient who started treatment to 303. TB CARE I experts participated in the development protocol to pilot an ambulatory care model of MDR-TB service in two regions (Addis Ababa & Dire Dawa) and are fully involved in the readiness assessment of the pilot regions.

Mozambique: During supervisory visits, 20 quarterly reports from 10 districts were reviewed for completeness, timeliness and analysis of information. 11 out of 20 quarterly Monitoring **Kenya:** Between January-June 2011, the private sector with support from TB CARE I through the Kenya Association for the Prevention of TB and Lung Diseases contributed to 8% of the national case notification (4,261 out of the 52,854 cases) compared to the 3% baseline or the 5% target for Year 1.







USAID TB CARE I