Welcome to the 3rd edition of the TB CARE I summary report which brings you an overview of TB CARE I achievements, results and successes three years into the program.
Three years into a five-year cooperative agreement with USAID (2010-2015), TB CARE I continues to achieve important results at global, regional, national and local levels. The program implemented 35 new core projects, five regional projects, and a total number of 19 country projects. Through these many projects, TB CARE I contributes 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 multi-drug resistant TB (MDR-TB)

TB CARE I’s Current Contribution to USAID Targets

Case Notification and Case Detection:
In 2012, over 1.1 million TB cases (all forms) and 521,436 new bacteriologically confirmed cases of TB were reported to the WHO across all TB CARE I countries. This indicates a slight increase over baseline 2010 levels (2% increase for all forms and 6% increase for new confirmed cases). Seven countries are above the Stop TB 70% case detection rate target, although no countries are currently meeting the USAID target of 84%.

Treatment Success:
TB CARE I countries continue to improve the successful treatment of sputum smear positive (SS+) TB patients. In 2011, 15 TB CARE I countries either maintained or improved upon the Treatment Success Rate (TSR) of the previous year. The successful treatment of 861,406 SS+ patients from 2010-2011 cohorts translates to a 34% achievement of the 2014 USAID target (2.55 million over five years). Seven countries exceed the USAID target of 87% TSR with Ethiopia and Zambia reaching or surpassing the target in 2011. Two additional countries are above the Stop TB target of 85%.

Number of New MDR-TB Cases Diagnosed and Put on Treatment
Between 2010 and 2012 a 27% increase in the diagnosis of MDR-TB cases was seen (13,469 total in 2012) (see below). In 2012, 12,895 patients were also started on MDR-TB treatment, which is a 45% increase from the previous year and a 56% increase from baseline (2010). A significant increase in the diagnosis of MDR-TB is attributable to the introduction of GeneXpert MTB/RIF (Xpert) in 11 TB CARE I supported countries. The cumulative number of MDR-TB patients started on treatment between 2010 and 2012 (21,806) equates to 38% of the USAID target (57,200 patients by 2014) being achieved. With continued rapid scale up, TB CARE I will help to reach this target by 2014.

<table>
<thead>
<tr>
<th>Year</th>
<th>All Forms</th>
<th>New Confirmed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>494,239</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>515,647</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>521,436</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th># Diagnosed</th>
<th># Put on Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>8,262</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>8,911</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>13,469</td>
<td></td>
</tr>
</tbody>
</table>

MTB/RIF (Xpert) in 11 TB CARE I supported countries. The cumulative number of MDR-TB patients started on treatment between 2010 and 2012 (21,806) equates to 38% of the USAID target (57,200 patients by 2014) being achieved. With continued rapid scale up, TB CARE I will help to reach this target by 2014.
Vietnam
23% increase in MDR-TB patients started on treatment (578 in 2011 to 713 in 2012).

Kyrgyzstan
Referral of TB patients for outpatient treatment increased from 19% to 30% in two pilot facilities.

Kazakhstan
MDR-TB treatment completion improved from 25% (Year 2) to 85% (Year 3) in TB CARE I supported Akmola Region.

Uzbekistan
TB CARE I developed an MDR-TB outpatient model, which will serve as a policy framework for the Global Fund-supported national TB program.

Afghanistan
Treatment success in Kabul City increased from 49% (2008) to 79% (2012).

South Sudan
The average enrollment time for TB patients in Juba City dropped from 12 to 3 days in Year 3.

Ethiopia
MDR-TB patients that were started on treatment increased by 140% between 2010 (160) and 2012 (288).

Nigeria
526 Rif-resistant TB cases were diagnosed with GeneXpert out of 6,297 tests.

Kenya
External Quality Assurance performance increased from 28% (2008) to 88% (2012).

Zambia
In Ndola District, where TB CARE I introduced triage as a component of TB-IC, 24% more patients were diagnosed with TB from 2011 (3,152) to 2012 (3,905).

Cambodia
In 2012, 97% of children (3,215) started on IPT successfully completed their treatment.

Indonesia
After GeneXpert was introduced, the average time between registration of presumptive MDR-TB cases and time to second-line treatment initiation dropped from 81 to 15 days.

Tajikistan
Number of MDR-TB patients registered increased by 2.5 times between Jan-Sep 2012 (131) and Jan-Sep 2013 (361) in TB CARE I sites.
Universal and Early Access:

Universal and Early Access is a priority for TB CARE I given the range of technical issues that it covers, from a patient-centered approach to service quality, whether in the public or private sector, in the community or in prisons.

Among the 11 countries where TB CARE I has made moderate to substantial investments in addressing TB in children, 10 (91%) countries have ensured that pediatric TB is an integral part of the national strategic plan and regular activities in Year 3, compared to only six countries in Year 2.

Laboratories:

TB CARE I is playing a key role in helping countries scale-up the implementation of GeneXpert MTB/RIF (Xpert). In Year 3, Cambodia, Ethiopia, Indonesia, Kazakhstan, Kenya, Mozambique, Nigeria, Tajikistan, Viet Nam, Zambia and Zimbabwe were supported with procurement and technical assistance. At the end of Year 3, 78 Xpert instruments were operational due to TB CARE I support. In the countries in which Xpert has been successfully implemented with TB CARE I support, 30,108 Xpert MTB/RIF tests were performed during Year 3 compared to 8,523 in Years 1&2.

TB CARE I Investment in Universal Access

<table>
<thead>
<tr>
<th>Technical Area</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Childhood TB</td>
<td>15</td>
</tr>
<tr>
<td>Patient-Centered Approach</td>
<td>8</td>
</tr>
<tr>
<td>Prisons</td>
<td>8</td>
</tr>
<tr>
<td>Community-Based DOTS</td>
<td>8</td>
</tr>
<tr>
<td>Outpatient Care</td>
<td>6</td>
</tr>
<tr>
<td>Public-Private Mix</td>
<td>5</td>
</tr>
</tbody>
</table>

Number of New and Rif-Resistant -TB Cases Diagnosed in Year 1-2 & Year 3

<table>
<thead>
<tr>
<th>Years</th>
<th>New Cases Detected</th>
<th>Rif-Resistant Cases Detected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&amp;2</td>
<td>612</td>
<td>994</td>
</tr>
<tr>
<td>Year 3</td>
<td>1023</td>
<td>3623</td>
</tr>
</tbody>
</table>

New TB cases are calculated from Xpert positive tests among new presumptive TB cases. RR TB cases are calculated as Xpert RR TB tests among all tested samples, i.e. presumptive new and presumptive MDR-TB cases. Because these data are not individual patient data but a simplification from the lab register, every patient-tested twice appears twice in these statistics.

A new TB Supra-National Reference Laboratory (SNRL) was officially opened on the 10th of July 2013 in Kampaala, Uganda. After six years of hard work and investment from USAID (through TB CAP/ TB CARE I) and the CDC, the laboratory received the accreditation from the WHO in April 2013.

The project development was led by The Union and in collaboration with the SNRL at the Tropical Institute in Antwerp, KNCV Tuberculosis Foundation and the Royal Tropical Institute in Amsterdam.

The new laboratory has already established formal supervision links with Zambia and South Sudan, and additional links with other countries, such as Botswana and Ethiopia are under discussion. These connections will play a crucial role in the self-sustaining operations of the laboratory in the future.
Infection Control (TB-IC):

All TB CARE I countries have developed national TB-IC guidelines (compared to only 50% at baseline in 2010) and TB-IC is now incorporated in the overall national Infection Prevention and Control Policy of all TB CARE I countries except Uzbekistan.

TB CARE I increased its investment in facility level implementation by offering training to facility staff, technical assistance for facility risk assessments and the development of infection control plans, provision of commodities such as surgical masks, respirators and fans, and the completion of minor renovations.

TB CARE I published a guide to monitoring TB disease incidence among HCWs. The guide is designed to help countries to establish a screening program and surveillance system for detecting and monitoring TB disease among HCWs.

Programmatic Management of Drug-Resistant TB (PMDT):

PMDT scale-up is a high priority for TB CARE I. In Year 3 most countries showed a substantial increase over the previous year in the numbers of patients started on treatment compared to those diagnosed.

The graph (below left) shows the total number of patients registered in the 2010 MDR-TB treatment cohort and the number that successfully completed treatment. Out of 8,273 patients starting MDR-TB treatment, 68% were reported as successfully treated, ranging from 29% (Mozambique) to 90% (Uganda). Kazakhstan alone contributed 5,777 MDR-TB patients of whom 73% successfully completed treatment. Four TB CARE I countries perform above the global target for successful treatment completion of confirmed MDR-TB patients (75%).

To improve patient adherence in Indonesia, TB CARE I assisted the National TB Program (NTP) to decentralize PMDT services to health facilities closer to the patients’ homes. By the end of Year 3 more than 400 PMDT satellite health centers were functional and 64% of MDR-TB patients (452/708) are continuing treatment at these facilities.

TB/HIV:

The program implements TB/HIV-related activities in 11 country projects, 10 of which have PEPFAR-supported activities or workplans. The average percentage of co-infected patients on Antiretroviral Treatment (ART) rose from 39% to 55% between 2010 and 2012. In general, cotrimoxazole preventive therapy (CPT) use did not expand over this period (80% coverage), although small improvements were seen in some countries.

<table>
<thead>
<tr>
<th>Year</th>
<th>MDR-TB Patients Registered on Treatment</th>
<th>Number that successfully completed treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>3863 (-65%)</td>
<td>5898</td>
</tr>
<tr>
<td>2010</td>
<td>5665 (-68%)</td>
<td>8273</td>
</tr>
</tbody>
</table>

Percentage of Reported HIV-Positive TB Patients Started or Continued on ART (2010-2011)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of HIV-Positive TB Patients started or continued on ART*</th>
<th>Percentage of HIV-Positive TB Patients started or continued on ART*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>74,578</td>
<td>39%</td>
</tr>
<tr>
<td>2011</td>
<td>91,462</td>
<td>51%</td>
</tr>
<tr>
<td>2012</td>
<td>101,242</td>
<td>55%</td>
</tr>
</tbody>
</table>

* 2010: 39% (of 190,938); 2011: 51% (out of 179,593); 2012: 55% (out of 182,566)
Health Systems Strengthening (HSS):

Health system strengthening is a component of nearly every country workplan with activities ranging from supportive supervision and technical assistance of Global Fund planning to implementation and developing sustainable funding mechanisms. In the most recent scoring of Global Fund grants, 46% of all grants in TB CARE I countries are rated as A1/A2, whereas only 35% of grants in non-TB CARE I countries have the same rating (see right).

In Year 3, TB CARE I trained 16,730 individuals (health care workers, community volunteers, consultants, NTP staff, laboratory technicians, etc.), across all technical areas at the country level (see below), compared to Year 1 when 4,354 people were trained.

Monitoring & Evaluation, Operations Research and Surveillance:

TB CARE I countries recognize the importance of monitoring and evaluation (M&E) and the program is helping to meet their needs. In Year 3, 84% of countries reported measuring some aspect of data quality compared to only 71% in Year 2, 55% in Year 1 and 50% at baseline. Afghanistan and Zambia started conducting data quality assessment activities in Year 3 with the support of TB CARE I.

In Year 3, TB CARE I has been involved in Operations Research (OR) in 13 countries. Since the start of the program, around 80 OR studies have been initiated, with TB CARE I’s level of involvement varying from major or minor financial/technical support to full implementation of the studies. Roughly 28% (22) of all the initiated studies have been completed and 49% are ongoing or just starting up.

In Year 3, TB CARE I supported the implementation of TB prevalence surveys in five countries: Ghana, Indonesia, Kenya, Uganda and Zambia. Support ranged from the procurement of supplies to technical assistance and data analysis. The final report of the Pakistan Prevalence Survey was also published by the Ministry of Health and TB CARE I.
Drug Supply & Management:

In eight countries, TB CARE I helps to ensure there are nationwide systems for a sustainable supply of drugs, by providing technical assistance to NTPs. Compared to baseline and Year 1 (8 countries), drug management Standard Operating Procedures (SOPs) are now available in 68% of TB CARE I countries.

Innovation:

In Cambodia, the pilot SMS alert system designed to deliver the results of sputum smears, was expanded to cover all 38 health centers and TB laboratories in two districts. The average turnaround time from the day the health center sends the sputum smear to the lab, to the day results are returned, decreased from seven days in 2012 to four days in 2013.

In Ethiopia, the piloting of an innovative approach to map and link human resources (HR) data to TB data was completed. Program managers were able to see relationships between TB case distribution, HR capacity, laboratory services, health facilities, and population density within the five piloted districts. The geographic information system (GIS) maps helped the district TB teams and the provincial health bureau identify health facilities and areas where deficiencies existed, and to develop targeted action plans to improve the quality of services.

Want to find out more?

The full TB CARE I Year 3 Annual Report is available on the TB CARE I website (see below), along with all the tools and publications which have been published so far.

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What is TB CARE I?

TB CARE I is a USAID five year cooperative agreement (2010-2015) that has been awarded to the Tuberculosis Coalition for Technical Assistance (TBCTA) 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 multi-drug resistant TB (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:

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